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The Journal of the Fire Protection Profession

JULY 24, 1929

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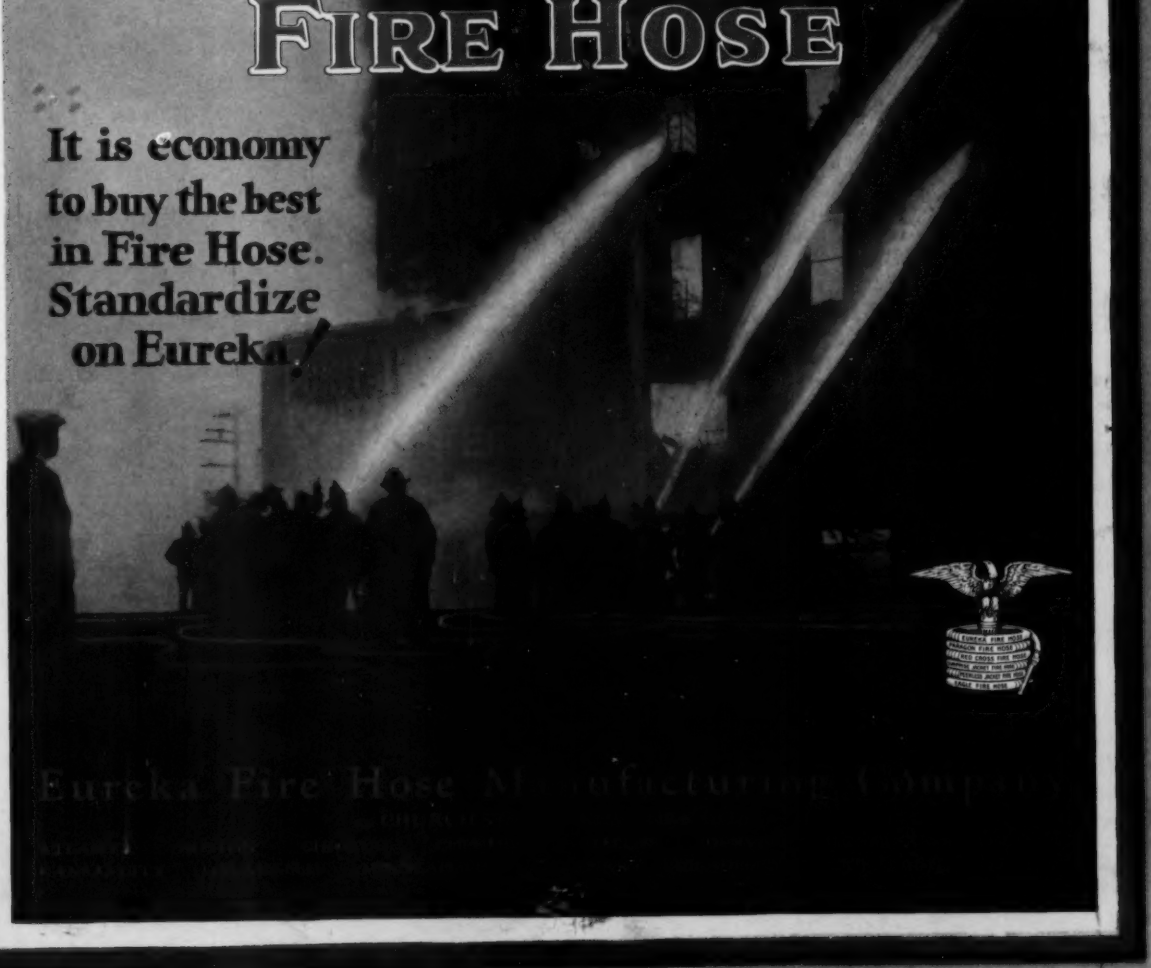
It is economy to buy the best in Fire Hose. Standardize on Eureka!



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The Journal of the Fire Protection Profession Since 1877

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FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER

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Welcome, Stranger

WE take off our hats to the way some cities handle their problems. Down at Atlantic City recently we parked our car too near the Boardwalk; and when we returned for it considerably later we found a blue ticket on it, reading:

POLICE DEPT.
Welcome Visitor
THIS IS NOT A

SUMMONS

¶ You have inadvertently violated one of our local traffic rules.

¶ Realizing the difficulty of conforming to different traffic regulations in different cities, in this first instance, as a welcome stranger—

YOU ARE EXCUSED

¶ We want your stay in Atlantic City to be as free from unpleasantness as possible. Traffic regulations, however, have been found necessary and in the public interest. A general summary of local rules is printed on the back of this ticket to help you help us. Please be careful in the future. When in doubt, INQUIRE.

Atlantic City Extends to You a Cordial Greeting and Hopes You Will Return Early and Often

Do not hesitate to make inquiries of Our Officers

WILLIAM S. CUTHBERT, *Director Public Safety*
P. J. DORAN, *Chief of Police*

No. A 1832

ANTHONY M. RUFFU, JR., *Mayor*

The Publishers

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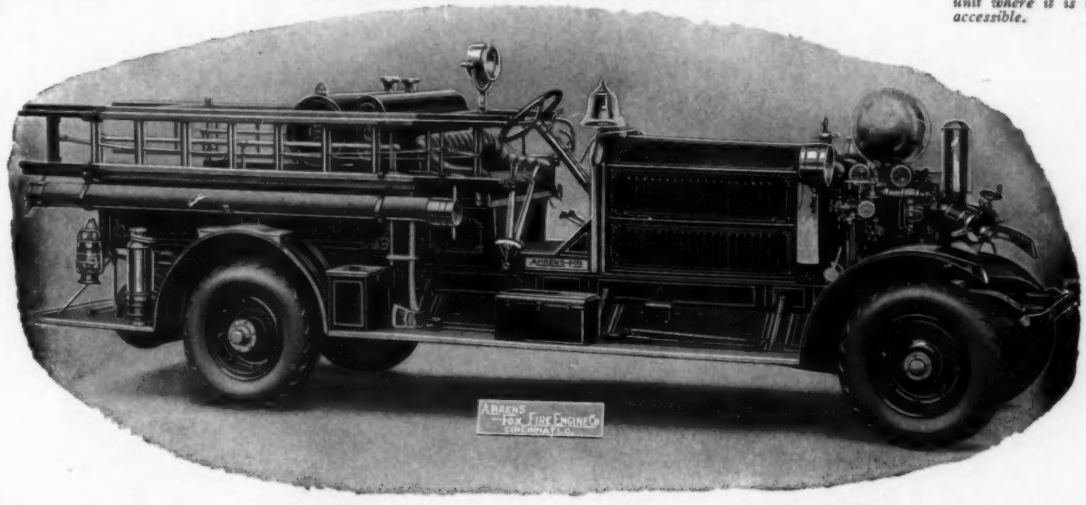
Entered as second class matter April 15, 1929, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

New Ahrens - Fox pumper — Complete, up-to-date, thoroughly dependable in every detail.

"Nothing is too good for fire service, and only the best will do."—Ahrens-Fox.

Note the balanced and sturdy construction and the practical position of the pumping unit where it is most accessible.



Modern Ahrens-Fox Apparatus

with twin pumping plant and super-powered fire apparatus motor is the standard of quality

Fire officials throughout the country who are alive to their public responsibilities invariably place quality—efficiency and dependability—above price and every other consideration in the selection of apparatus.

When the lives of their fellow-citizens, and their children, to say nothing of property valued at hundreds of thousands of dollars, are dependent for safety against fire upon the perfect operation of their equipment in every emergency, the selection of apparatus other than the best money can buy is unpardonable folly.

Fortunately, fire chiefs, commissioners, and other municipal officials who have the say-so in the purchase of fire department equipment are more and more coming to realize this fact, and are giving the selection af apparatus the careful consideration the work deserves.
Almost as naturally as day follows the night many of these up-to-date officials turn to Ahrens-Fox apparatus as the standard of quality in the comparison of the relative merits of apparatus of various manufacture.

There can be no question but that this recognition of Aherns-Fox supremacy is justified by the facts. The service records of Ahrens-Fox apparatus in use everywhere back up their high regard to the limit. Ahrens-Fox performance and supremacy are made possible by the painstaking investigations and thoroughly practical work of Ahrens-Fox fire apparatus engineers who have devoted their lives to this work, by the use of only the finest materials obtainable, by modern manufacturing machinery, and by the employment of especially highly skilled workmen.

To all fire officials we shall be glad to send complete information on request. No obligation, we just want you to have the facts. A postal with name and address will do.

May We Send You Complete Information?

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"Builders of Quality Fire Apparatus"

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THE NEW YORK SUN, TUESDAY, FEBRUARY 5, 1929.

Jewels to the value of $100,000 were removed today from a safe on the second floor of the home of [illegible] Broker, at Sycamore Avenue and 245th Street, Riverdale, the Bronx, after a fire which burned most of last night and until late this morning had destroyed the large mansion. While the ruins of the second floor were ransacked for other treasures that it was hoped might have survived the flames, the police guarded the safe and its contents.

In the presence of members of the Marx family the jewels were carried from the opened safe to the home of Mr. Marx's father, Rosenthal, about a hundred yards away, where they will be kept under guard until they are removed to a downtown safe deposit vault.

The fire apparently was discovered simultaneously by the banker's seven-year-old daughter, Audrey; the gardener, Leon Durant, and an aviator who lived in the house, flying low until the roar of his motor attracted the attention of the neighbors. The spectators were almost as helpless as the firemen who answered two alarms. Fire hydrants near the house were frozen and only three weak streams could be coaxed from connections 1,500 feet away.

When Miss Audrey Marx discovered the blaze she made her way through the smoke to the north wing, where her father's collections of paintings hung, and saved a portrait of her mother painted by Mr. Mosler, Mrs. Marx's father. As she reached the lawn of the six-acre estate, half blinded by smoke, she was met by neighbors who had rushed from their homes. She had left the Rembrandts to burn because she had only time to seize one picture and she chose her father's favorite.

Later it was discovered that August Attman, the butler, had dragged two other paintings from the fire.

The house, valued at $500,000, formerly was owned by Darwin P. Kingsley, President of the Metropolitan Life Insurance Company. It stood on a bluff overlooking the Hudson and the steep road to it was found by firemen last night covered with ice.

Mr. Marx has offices at 25 Broad Street and is listed as a director of the Piggly Wiggly Corporation, the Transmix Corporation, the American Writing Paper Corporation and other businesses.

Fire Hydrants Near the House Were Frozen. Only Three Weak Streams Could be Coaxed From Distant Connections

Darling Hydrants Drain the Water Automatically From the Barrel To Prevent Freezing

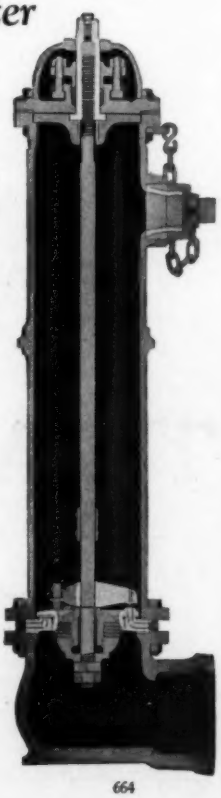
Darling Fire Hydrants have drain valves that work automatically, uncovering three holes in closing the hydrant. Through these holes the water rapidly escapes, preventing (even in the coldest weather) freezing. The provision of *three* drain holes instead of one affords a factor of safety should one become clogged.

There are many other advantages in the Darling Hydrant which you should know about. Send for descriptive literature.

Darling Valve & Mfg. Company
Williamsport, Pa.

NEW YORK CHICAGO OKLAHOMA CITY HOUSTON

DARLING FIRE HYDRANTS



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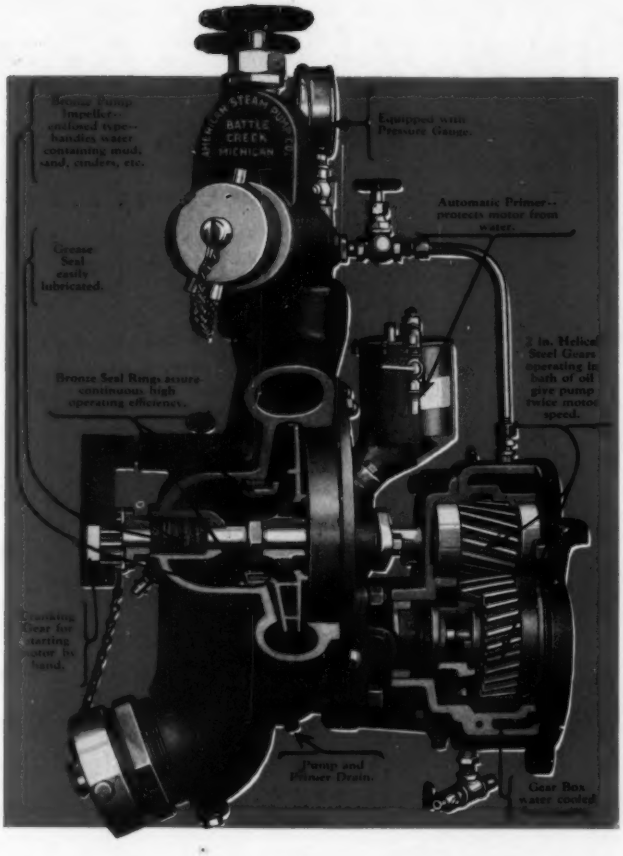
BATTLE CREEK MICHIGAN
Equipped with Pressure Gauge.
Automatic Primer—protects motor from water.
Grease Seal easily lubricated.
Bronze Seal Rings assure continuous high operating efficiency.
2 in. Helical Steel Gears operating in bath of oil give pump twice motor speed.
Pump and Primer Drain.
Gear Box water cooled

You've Heard a Great Deal About this Fire Pump, *Now*—

STUDY for a moment its design and construction as revealed by the sectional view above. Note that it is a centrifugal pump, handling water from either hydrant pressure or suction. Note water cooled gear box, automatic primer, and bronze seal rings.

Without question, here is the finest fire pump in its class. Yet, due to greater simplicity of design plus improved production methods, the Barton is by far the lowest priced. A quotation will convince you.

Pump is mounted on front as shown.

Barton Pumps can be used with practically all types of apparatus, and are handled by all leading apparatus people. Consult with any one of them, or write us direct for Bulletin 60.

AMERICAN STEAM PUMP COMPANY
BATTLE CREEK, MICHIGAN

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FIRE PUMPS

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1929 Model Codewell

Competitive tests have proved conclusively that the Codewell signal has greater carrying power than any other coding siren in the field. It also sounds four rounds of a signal while the next fastest siren is sounding only one and one-half rounds.

SEVERAL months ago the new Gamewell fire alarm box was announced. Since then, the box has met with a favorable reception everywhere it has been seen. The cities listed below and scores of others have already installed or placed their orders for quantities of this box:

Palo Alto, California	Trenton, New Jersey
Denver, Colorado	Poughkeepsie, New York
Hartford, Connecticut	Cleveland, Ohio
Washington, D. C.	Lakewood, Ohio
Ft. Lauderdale, Florida	Allentown, Pennsylvania
Atlanta, Georgia	Providence, Rhode Island
Detroit, Michigan	Woonsocket, Rhode Island
Duluth, Minnesota	Dallas, Texas

We have been able to concentrate largely on one standard model without variation, whereas before the variations in fire alarm boxes were numerous and expensive. Consequently we have realized economies and are passing them along to you.

A reduction of 10% in the price of the 1929 Peerless Box (street model only) goes into effect immediately. This applies only when the box is ordered in its standard form without any variation whatever. Any special features will be included if desired, but at an additional cost based upon the nature of the change.

This covers the box with the 18 improvements, without any change in the high quality of the workmanship and materials.

(Write for Descriptive Literature)

THE GAMEWELL COMPANY
Newton Upper Falls, Mass.
"A Box a Block"

FIRE ENGINEERING

(A Consolidation of Fire and Water Engineering and The Fire Engineer)

The Journal of the Fire Protection Profession

VOLUME LXXXII JULY 24, 1929 NUMBER 15

Automatic Fire Vents to Save Life

Such Devices Installed in Buildings Would Reduce Loss of Life and Damage to Property—Fire Department Practice of Ventilation

By ASSISTANT CHIEF THOMAS F. DOUGHERTY, New York Fire Department

IN this paper, in which Chief Dougherty shows that he is a master in the science of Ventilation, he advocates the passage of laws compelling the installation of automotive vents on all vertical openings of buildings, which would reduce the danger to life through suffocation by gases spreading over floors in fires and also would prevent much property damage.

About 17 years ago, there was installed and located in the New York Fire Department Drill Yard, a six-story, miniature concrete building having two divisions, entirely separated one from the other by an unpierced fire wall extending from front to rear; each division had its own shaft extending from grade level, to and through the roof, with an opening at each floor level.

Assistant Chief Thomas F. Dougherty, New York Fire Department

This miniature building was provided for the use of the New York Fire Department College, for the purpose of making demonstrations that would be convincing and certify to the value of properly venting a fire involved building, especially where the fire is traveling through any vertical shaft in the structure or where an officer in charge of the fire anticipated its extension to any shaft with which the building may be provided.

From the first day on which it was used for demonstration purposes, many chiefs from large cities and smaller communities, some as visitors and others attending the N. Y. Drill School, witnessed the many demonstrations that were made.

For several years after the miniature building was placed in service, on occasions when demonstrations were to be made, it was the practice to question out-of-town chiefs and subordinate officers present as to their opinion of the value of venting a fire involved structure.

In practically every instance the chiefs present stated that they disapproved of the theory and the subordinate officers stated that their superiors would not permit of this practice being followed, for the reason that it would do more harm than good; after witnessing a demonstration, their opinions changed instantly and the practice received their unqualified approval.

How could it be otherwise? For they had witnessed a convincing demonstration of an idea that has for its foundation the exercise of nothing more than ordinary common sense, which, in its final analysis, implies that action has been taken that will relieve a fire involved building of the gases, heat and smoke pent up within it.

Old Department Order Nullified Advantages

Previous to the organization of the New York Fire College, the practice of venting a fire involved structure was always recognized by the New York Department as a necessary function to assist in a fires extinguishment. But the manner in which it was accomplished made it absolutely valueless, for the reason that a standing order in the department designated it as the duty of the 2nd due truck company, regardless of the distance it has to cover in reaching the location of the fire or such delays it may have been subjected to by accident or in other ways. Hence this important work that should be performed promptly received no attention from the other units in action at the fire, for the reason that it was the duty of another, as the standing order of the day specified. Delay is fatal, as conditions will develop that will make the work of extinguishment more difficult and the property loss greater.

But times have changed, insofar as fire practices are concerned, especially as to the ventilation of fire involved buildings. Where formerly it was never discussed or any references made to it in fire department circles, today it receives the unqualified approval of fire chiefs from Maine to California.

Ventilation Must Be Performed Promptly

If any good is to be derived from that part of a fire extinguishing operation called "Ventilation," it should be done promptly by the first operating unit to arrive, one or two members of which should go to the roof by way of adjoining buildings where possible, opening up skylights, scuttles, bulkheads, tops of elevator, dumbwaiter or other shafts where an outlet of heat and smoke can be created. Where detached construction exists the officer in charge should be prompt to use ladders to the best advantage as circumstances and conditions will permit.

What Ventilation Accomplishes

Where ventilation has been provided promptly, what will it

"FIRE CHIEFS should be interested, either as individuals or collectively as a representative body, in obtaining legislation that will be the means of compelling the installation on all buildings, old and new, of automatic vents on all vertical shafts."

accomplish? It will relieve the structure of the hot gases and smoke combustion; it will prevent the mushrooming condition in the upper parts of a structure; it will permit of the more rapid advance of the hose lines; a fire will be extinguished more quickly, which means a much reduced loss on structure and contents; it will eliminate many of the so-called backdraughts, which, as a matter of fact, are explosions of gases distilled from wood flooring, wood floor beams, wood trim, paint on walls, trim, etc., (these gases are produced by high temperatures before the ignition point has been reached, in addition to carbon monoxide produced by imperfect combustion and they form an explosive combination in air); and last, but most important of all, it will aid to a very great degree in the saving of lives that might be lost, where the venting of a structure is ignored or neglected.

Automatic Vents for Buildings Advocated

We read from time to time, in the daily press of lives taken by fire in tenements; in palatial homes; in the factories and in the small frame dwellings and hotels throughout the land. Headlines appear, such as "Five Burned to Death in Frame Dwelling," "Ten Persons Burned to Death in Tenement," "Wife and Daughter of Millionaire Burned to Death in Mansion Fire," etc., and these headlines do not state the actual facts in all cases and are only 5% accurate, for the reason that the remaining 95% were not burned to death but had had their lives snuffed out by the superheated gases that ascended throughout the structure with considerable velocity. To be brief, they were dead before the flames reached them.

But this terrible toll of lives taken as the result of fire originating in building is avoidable to a great degree and would be reduced probably 75% if automatic vents were provided over stairways or other shafts extending vertically through a building, the operation of the vents to be controlled by the fusing of 165 degrees fusible links. Thus outlets would be created automatically for the escape of the hot gases, flame and smoke produced by the combustion of the contents and structural parts of the building.

Inrush of Gases from Stairhall Often Fatal

Let us consider a fire which originates in a tenement or other structure in a cellar, basement or other low floor level. It burns for some minutes, undiscovered, late at night or in the early hours of the morning, when the occupants are asleep in their beds the fire has extended to and is burning briskly in the stairhall. It is discovered by a police officer, milkman or citizen who may be passing the building. The cry of fire is raised, it awakens some of the sleeping occupants and the most natural and usual thing for them to do is to open the door of their apartment leading to the stairhall. The upper area of the stairhall is filled with superheated gases. As they open the door a hot blast strikes them in the face; it is unbearable; they run from the door without closing it. They do not get very far when they succumb, suffocated. Other members of the family, who did not even rise from their beds are likewise overcome by the inrush of heat, smoke and gases. This description is typical of what may happen on the upper floor or floors of a building, whether it is two or more stories in height, whether in the home of the lowly or the man of wealth.

Large Part of City Block Destroyed in Saginaw

Fire department officers must be clear thinkers. For example a telephone call was sent in at Saginaw, Mich., at 2 a. m., to request that a small chemical be sent. The department did otherwise. A pumper and a ladder company were ordered out. When the men arrived a fire was under good headway in the first and second floors and basement. Thirty-five persons who were housed on the second and third floors were rescued by means of ladders and the stairways. A second alarm was turned in, and special calls made for three additional pumpers. The building was fifty years old constructed of brick and brick veneer. Several firemen were injured in fighting the fire. Chief John L. Kreuzberger was in charge.

Law Should Compel Automatic Vents on Buildings

Fire chiefs have had many happenings in their communities as that just described and they should be interested, either as individuals or collectively as a representative body, in obtaining legislation that will be the means of compelling the installation on all buildings, old and new, of automatic vents on all vertical shafts.

The cost would be small; without considering the life hazard, we are of the opinion that if the automatic vent was universally applied to all structures the contents and structural fire losses would be materially reduced.

CORRESPONDENCE

Raising Hose Lines

To the Editor:

I am inclosing a report of a test made by the members of the Tulsa Fire Department some time back. It might be of some interest to the readers of your magazine.

"On Sunday September 9, 1928, the members of the Fire Department, under the direction of Chief R. E. Pitts, made a test on the Exchange National Bank Building. This building is twenty-seven stories in height with a tower of sixty feet in addition, making a total height of 408 feet. Thirty-four men were used in this operation. The men were placed as follows: Twenty-nine men started up the fire escape in single file, one man stopping off at each floor. In the meantime one man was pulling-off 550 feet of hose from a hose tender and secured it to the end of a 14-foot pike pole.

When the man arrived at the second floor the man on the ground passed the pike pole up to him, he in turn passed it on to the man on the third floor and etc. After having passed the pike pole up the men continued to feed the hose upward. This operation continued until the hose had reached the twenty-seventh floor. The hose had reached the twenty-seventh floor before the man stationed to that floor arrived. On the twenty-seventh floor the nozzle was connected and two men started up the fire escape ladder on the tower, when they reached the top of the tower the line was made fast and water soon arrived. During the time these men were taking the line up, two men were hooking up the pump and connecting the lines. Three hundred and fifty feet of three-inch hose were used and 550 feet of 2½-inch hose were used. At the signal the hose had reached the top, the hose was secured by a hose strap on every other floor. The time was taken the companies first arrived and again when the water first emerged from the nozzle on top of the tower. The time elapsing during the entire operation was 13 minutes and 20 seconds.

An engine pressure of 265 lbs. was required to deliver 35 lbs. pressure at the nozzle.

All the men of the Department are of the opinion that the time can be bettered, as this was the first test of its kind ever attempted in Tulsa.

Trusting that this may be of some benefit to your worthy publication, I am,

Very truly yours,

R. E. PITTS,
Chief, Tulsa Fire Department.

Fighting Cellar Fires

To the Editor:

The cellar fire, in my opinion, is one of the most difficult of fires to combat, especially when occurring in the business district where inflammable articles are store. Once such a fire starts, large volumes of smoke are given off and intense heat results.

In fighting such fires, ventilation is one of the most important factors. It is difficult to fight smoke and fire and still be able to confine the fire to the place of origin. Time is also lost in reaching the seat of the blaze with hose lines if the men have to work through dense smoke and intense heat.

If smoke is present when the first company arrives, a truck company unit should ventilate the building by opening up at roof, elevator, dumbwaiter and air shafts and skylights so as to draw off the smoke and heat from the floors below. The transoms over the doors on the first floor should also be opened as smoke will pass out through the transom and men will not have to endure unnecessary punishment. In ventilating upper

(*Continued on page* 648)

Delegates to the Convention of the Eastern Association of Fire Chiefs Assembled in the Meeting Hall at the Hotel Pennsylvania

Eastern Chiefs Plan Fire College

Second Annual Convention Appoints Committee to Formulate Plans for Four-Year Course—Much Accomplished by Convention

THE second annual convention of the Eastern Association of Fire Chiefs held at Hotel Pennsylvania, New York City, July 11-12, was featured by discussion of many current topics. Leading the discussion, Chief Kenlon of the New York Department, emphasized the necessity of training firemen in all phases of "this dangerous warfare" brought on by modern conditions and continual changes in construction of buildings. Nothing is left of the fire-fighting methods of forty years ago, he said, except the grit and courage of the firemen.

Chief Kenlon said the training school established nineteen years ago in New York City had been of inestimable value. He contended that firemen should be thoroughly trained in modern building construction, strength of materials, hydraulics, chemistry, mathematics and anything else that has any bearing on fire fighting and fire prevention.

That a four-year course for training in such subjects might be made part of the curriculum at Columbia or New York University, was suggested by Chief C. W. Greenfield, president of the association. He said scientific fire fighting was a question of study as well as practical experience, and declared that "the day has passed of the mere throwing of water on a fire.

"There is no limit to the professional studies of a fire chief," said Mr. Kenlon. "New conditions are constantly arising. Airports are being built and even planes in the air must be protected against fire. It is absolutely necessary to establish a sea of learning for those studies."

Report of Officers

Following the talk by Chief Kenlon the reports of the secretary and treasurer were read and approved as presented. These officials expressed themselves as being greatly plased by the cooperation received from members and ask that this spirit prevail in the future.

The association now has a membership of 1,800, and it is the aim of these officials to bring it to the 3,000 mark within the coming year.

The first paper presented was that prepared by Chief Kenlon and entitled "Decomposition and Free-burning of Nitrocullulose Films." The paper was read by Inspector Leo Lieberman of the Bureau of Combustibles, who explained thoroughly the makeup of the various gases which are thrown off by the burning of films and celluloid materials. "Carbon monoxide gas has caused more deaths than any other of the gases which are generated at such fires," said Mr. Lieberman.

Discussion on Nitrocellulose Films

The above subject proved very timely, the Cleveland disaster being fresh in the minds of many of the chiefs. The point which seemed to be of most interest was whether or not steam was really responsible for the Cleveland hospital fire. Inspector Lieberman explained this point as follows: "Where there is steam, there is of course heat. Heat will decompose film, which in turn generates gases during the decomposition process, and which upon reaching their ignition point will burst into flame."

Geo. W. Booth, chief engineer of the National Board of Fire Underwriters, stated that it is generally believed by Cleveland officials that the recent hospital fire was caused by electrical equipment—which may have been in the form of an extension cord with lamp or other small equipment.

The Thursday afternoon session opened with President Greenfield in the chair, who offered a resolution of eulogy on the late Deputy Chief William Clark, who died on July 10th. Chief Clark was one of the faculty of the New York Fire College, and an active worker in the Eastern Association of Fire Chiefs. Chief Kenlon of New York also praised the work of Chief Clark in highest terms, and expressed his sorrow at the untimely death of his brother officer.

Cooperation of the Department

The first topic for discussion was "Fire Department Cooperation in Time of Fire," which was led by Chief John Brennan of Pelham Manor, New York. Chief Brennan outlined the Fire Chiefs' Emergency Plan, and briefly reviewed the work accomplished at the several meetings of that or-

ganization. He pointed out the legal difficulties in connection with responding to fires outside of city limits and added that greatest benefits so far from the Fire Chiefs' Emergency Plan was the personal contact established between the various fire heads interested in this plan.

Chief John Gibson of Mount Vernon, also discussed the plan.

Chief Henry W. Breder, of Egg Harbor City, N. J., described the system used in Atlantic County. He said his cooperative organization realized the possibility of legal handicaps, but went ahead without bringing the question up.

First Aid Demonstration by New York Firemen

Fire Rescue Squad No. 1, under the direction of Dr. Harry M. Archer, Honorary Surgeon of the Department, is showing the Eastern Chiefs how resuscitation work is performed. Dr. Archer is standing in white uniform at right of demonstration.

The departments of this county have been cooperating for over one year, and excellent results have been accomplished. As a matter of fact, the smaller departments around Atlantic City have proven of service to that city when large fires have occurred.

Each fire company in the Atlantic County Cooperative Organization is provided with a code chart which gives full instructions on covering in response to alarms. The chart is so arranged that no town will ever be stripped of apparatus, for while most of the apparatus may respond to a fire in some neighboring city, fire companies from other communties cover in.

Chief MacMillan of Orange, N. J., told what had been accomplished by the Essex County unit. The system in this county is still in its formation, and it is hoped that a bill covering the liability of fire departments when responding to alarms outside of their corporate limits will be presented to the State Legislature and, it is hoped, will eventually be put into effect. At present the Essex County plan is at a standstill. In the meantime, the departments cooperate where possible, and are now planning to go after the State liability law.

Chief Granahan, Drill Master of the Philadelphia Fire Training School, described the cooperation by Chief Davis with out-of-town cities. Chief Davis has always provided assistance to neighboring towns when such has been asked.

Chief Kenlon pointed out that the fire department's authority within the city limits is unlimited. But where the out-of-town problem arises, that is another thing entirely. He referred to a legal decision, the work of Mr. Roscoe Conklin, one of the foremost legislators of all time in this country. The substance of this decision was that the Governor only had power to order apparatus out of town. He is the head of every fire department in the state. Chief Kenlon added, however, that while the statutes make it illegal for fire departments to go beyond the city limits and render service, without orders from the Governor, the law of humanity governed him where a neighboring community in dire distress appeal for assistance. It was Chief Kenlon's opinion that for developing general cooperation successfully, a state law is needed.

Committee on Cooperation Between Towns

He outlined a plan of master boxes on certain radial thoroughfares by which chiefs of cooperating towns could transmit calls for help. He suggested that only the chief in each fire department be empowered to transmit such alarms.

At the conclusion of his remarks, Chief Kenlon moved that a committee be appointed to study the question and report back to the Association at its next convention. The motion was carried unanimously.

Chief Marshall Talks on Care of Pumpers

As the second subject on the afternoon program, Deputy Chief Richard J. Marshall, in charge of the New York Fire Department Repair Shop, outlined the essential points in the care and operation of fire motor apparatus. He described the tests required of new motor apparatus, and covered thoroughly the question of propet inspection and operation thereof.

Drills and Training at Company Quarters.

Deputy Chief J. J. T. Waldron presented the third topic, "Drills and Training at Company Quarters." The paper is found complete on another page of this issue.

Battalion Chief Rankin questioned Chief Waldron as to how to retain interest of the men in the station drills.

In answer, Chief Waldron pointed out that there are an infinite number of fire problems to be covered, so that there is no danger of running short of subjects. As an example he mentioned the inspection of buildings by members of the companies in his district. These inspectors were instructed to report unusual things encountered in addition to the usual violations; for instance, defective or frail partitions, etc. On the basis of these reports talks were prepared, and thus the members of the department furnished information which would prove useful as well as interesting to them.

Included in the subjects for discussion are laws, ordinances, general inspection, fire fighting, etc.

Chief Kenlon, in commenting upon Chief Waldron's talk, said there is no end to the subjects which can be treated

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Scaling Ladder Drill by New York Firemen

Demonstration of work for the benefit of the Eastern Chiefs at the New York Training School.

Even the Large Chemical Fire Can Be Controlled

At the fire shown above large streams were put in operation, and plenty of water was discharged on the fire. No lives were lost and the fire was confined largely to the top floor, even though the roof was blown off by explosion. Modern fire fighting requires a knowledge of contents of buildings and their action under fire.

Fires That Punish

Department Never Knows What Will Happen Next—Precautions to Save the Men

THE person who conceived the expression "no two fires are alike" certainly hit the mark insofar as chemical fires are concerned. The department never knows what to expect when it starts operating on a chemical fire.

But let us just review what some of the commonly encountered chemicals may be expected to do at a fire: First, there are those chemicals which, when wetted, increase the work of the department. For instance, calcium carbide when struck with water streams releases acetylene gas, which not only is highly inflammable but which when mixed with proper proportions of air is explosive. Many a building has been wrecked by the explosion of acetylene gas. Then there is potassium, which inflames and may explode spontaneously on contact with water. Lime, too, is troublesome when wetted, and sufficient heat may be generated to ignite combustible materials in contact with the dampened lime. Aluminum dust, also, is troublesome to handle in the presence of water. If aluminum is burning, and is subsequently struck with a water stream, an explosion may be expected. Potassium peroxide, likewise, may cause explosion on contact with water.

The Oxydizing Chemicals

There are also the oxidizing chemicals, those chemicals which generate oxygen in the presence of fire. Such chemicals make it possible for fire to burn even when there is no air present. Among these chemicals may be mentioned the following: chlorates, peroxides, chromic acid, copper nitrate, nickel nitrate, silver nitrate, sodium nitrate and other nitrates. When large quantities of these materials are encountered, the department has a difficult task to handle. About the only thing to do is to use water in such quantities as to bring the temperature of the burning materials down to a point below their re-ignition point. Smothering the fire can not be accomplished by any of the means employed by fire departments.

Chemicals That Throw Off Fumes and Gases

Other chemicals create a distinct life hazard by throwing off poisonous fumes and gases when heated. Possibly the best known of such chemicals are the pyroxylin plastics, and so called "celluloid" products. The recent Cleveland hospital disaster is so freshly in mind that it is not necessary to add to what celluloid may do when encountered in fires.

Bromine is another chemical which is exceedingly dangerous. At ordinary temperatures it gives off poisonous, suffocating vapors, which frequently prove fatal to those exposed to them. Hydrochloric acid, too, gives off poisonous fumes which, while not as dangerous as those from burning celluloid or bromine, nevertheless constitute a real life hazard. Nitric acid fumes, too, are deadly. They are particularly troublesome in that they do not show their effect until many hours after exposure to them. Sulphuric acid and potassium sulphide also may be expected to create gases which are highly dangerous.

Hazardous Compressed Gases

In the field of compressed gases, found in steel cylinders, which add trouble to the work of fighting fires, may be mentioned ammonia, chlorine, oxygen, acetylene gas, pintsch gas, and other gases used for illumination and welding. Then there are the gases used in refrigeration which, while not so dangerous to human life from the standpoint of asphyxiation or poison, create a fire hazard by their combustibility.

It is hardly necessary to add explosives to the list above, for their potentialities are well understood by most fire department officers.

Handling the Chemical Fire

If the chemicals involved are known, and if their reactions under fire are also understood, the fire department is in a much better position to handle the blaze than if nothing is known of the contents of the building insofar as chemicals are concerned.

In any case, thorough ventilation is essential both from the standpoint of preventing explosion as well as injury to men.

Ventilation permits the gases to be drawn up through the building and discharged through the roof irrespective of their weight, as long as fire is burning vigorously. The draught created will be sufficient to carry heavy gases such as chlorine away from positions where they would hazardize the lives of the force. Hence one of the first essential operations in fighting a chemical plant fire is to provide thorough ventilation.

Water streams are, in general, the most effective means of handling chemical fires. Where strong acids are encountered, water will either neutralize or so dilute the acids as to make them comparatively harmless. Water will also absorb certain gases which are dangerous from the standpoint of explosion and life hazard to men. Liberal quantities of water, however, should be used. Heat generated in some chemical fires is so intense that in order to bring the temperature down to a point below reignition it is necessary to employ very liberal quantities of water. Water also cools off chemical containers, including gas containers, and thus reduces the liability of explosion of such containers by lowering the pressure therein.

Due to the high temperature generated at certain chemical fires, it is necessary to provide the maximum coverage of exposed buildings by heavy streams. Deck guns are far more suitable for this purpose than are hand lines, due to the greater range of streams from them, and the greater ease in manipulating them.

When a plant is well involved, it may seem for a while that the streams are ineffective, but it must be remembered that where the entire contents of a plant are afire, and such contents are highly inflammable, generating high temperatures, great quantities of water will be needed. As the streams continue in operation while the materials do not increase in quantity, a time will be reached when the streams will begin to show their effect by darkening the fire. But large streams are absolutely necessary where an establishment of comparatively large area is well involved.

Be on the alert for collapse of walls, particularly in the early stages of the fire, due to explosion of inflammable gases.

While sudden explosion may be delayed by failing to ventilate, when it does occur, due to the collapse of roof or other event supplying the fire with plenty of air, the explosion is apt to be far more disastrous than if caused in the early stages of the fire by opening up for ventilation. When opening for ventilation, men should stand to one side of doors or other openings from which the covers are removed.

Where chemicals are found which give off poisonous fumes no attempt should be made to operate at close range until the building has been fully opened and thorough ventilation acquired. Even in this case, if it is not certain that the danger of gas poisoning has been eliminated, men entering the buildings should do so only when equipped with proper gas masks or helmets.

It is generally conceded that the saving of human life is of first importance, and thus no move should be made where men would be placed in extreme danger in an effort to keep the fire loss down.

Modern Fire Prevention Ideas in Hospital Design

Means to prevent a possible flash of fire down long corridors has been taken in the construction of the Beth Israel Hospital in New York City at Stuyvesant Square East. Steel shutters are installed so that there will be barriers in time of fire.

A. I. SCHWEITZER.

Newark Incendiary Sent to Jail

William Kirschenbaum, insurance adjuster of Newark, N. J., found guilty in the Superior Court at Bridgeport, Conn., in September, 1928, of setting fire to the plant of the Reduso Rubber Company of Bridgeport on the night of May 3, 1927, must serve his five to ten year term in the Connecticut State prison at Wethersfield, according to a Supreme Court opinion written by Chief Justice George W. Wheeler.

"The jury would have been justified in finding the accused's testimony far from convincing and filled with contradictions, inconsistencies, evasions and manifest untruths," said the Court which took exception to the "tactics" of the defense counsel of Keogh & Candee and Frederick J. Groehl of New York, the latter who defended Gerald Chapman. It observed, "The result indicates, as it customarily does that, as a rule, success in the court room does not follow professional methods of this character."

The conviction of William E. Kirschenbaum and his subsequent sentence to the Connecticut State Prison for a term of from five to ten years marked the end of one of the most bitterly contested criminal trials in a Connecticut court. The conviction of the 51-year old insurance adjuster came after a jury had spent over eighteen hours in deliberation, most of the time hopelessly deadlocked.

Kirschenbaum was sentenced for burning the plant of the Reduso Rubber Company. The fire, it was later learned, was set in an effort to defraud several insurance companies of a total of $28,500 insurance upon the stock and fixtures of the plant located on the second floor of the Jacoby Building at 1483 Main street, Bridgeport.

When firemen under the command of Chief Daniel E Johnson, now retired, arrived at the Reduso plant it was immediately seen that the blaze was a "flash fire"—one set by the ignition of highly inflammable material and set with a view of sudden and fierce blast of flame to sweep through the structure so ignited.

Subsequent investigation led to the arrest of Jack P. Siegal

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What Drills in Company Quarters?

Frequent Drills Should Be Held in All Departments, Whether Paid or Volunteer—The Practice in New York

By DEPUTY CHIEF JOHN J. T. WALDRON, New York Fire Department

NOT only is the training of the fireman an important matter, Chief Waldron argues in the following paper, but the drills should be conducted both frequently, systematically and at regular set intervals. His ideas are well worth study by Chiefs of Fire Departments, both paid and volunteer.

Deputy Chief John J. T. Waldron, New York City

"Practice makes perfect" is an old copy-book adage which experience has proved correct. Present day usage seems to be to paraphrase the old time adages and therefore in relation to this subject of Drills and Training, the thought of this paper is to convey the thought that "Practice makes Purpose."

Regular and systematic drill and training should be the requirement in every Fire Department organization.

In the smaller communities, where volunteer departments serve, the members of such departments should be required to meet at least once each week for the purpose of drilling for a one hour period.

In larger towns and cities, where there may be a regularly paid organization, a daily drill of at least one hour should be held in each company of the department, and the officer in command should be designated to hold such instruction session.

How New York City Conducts Its Drills

In New York City, this policy was put in effect in 1928, and the following order which may serve as a guide for other fire departments was issued:

"Commanding Officers are hereby directed to drill their companies for at least one hour each day in the handling of all tools, apparatus, appliances and in the evolutions required by the existing rules, regulations and special orders. The time for the beginning and cessation of drills shall be entered in the company journal, together with a record of any interruptions occurring due to response to alarms of fire.

Chiefs of Battalions shall personally supervise the drill in at least one company each week.

Deputy Chiefs of Department shall keep an accurate record of the activities of companies and of Chiefs of Battalions under this order, and shall at all times be in a position to make a report to the Chief of Department (when called upon) concerning the efficiency of each unit. Where lack of interest or indifference is shown on the part of officers or firemen in carrying out drills, they shall forward a special report."

Drills Should Be Held in Uniform Manner

To insure the best results, it is essential that drills in the companies be held in a uniform manner. The time for drills are to be specified by the Chiefs of Battalion and to be so arranged as to avoid having adjoining companies drilling at the same time.

The apparatus floor of company quarters is the place for assembling the company for drill and instruction.

Topics for Instruction and Drill

Specific topics for instruction and drill must be prescribed for each day and such topics should include the following:

DUTIES OF DRIVERS: Placing apparatus at fires to best advantage to avoid blocking streets and to make deck pipes most advantageous; discussion of all possible routes for response and return from alarms; dangerous traffic intersections; points where routes of other companies will cross; hospital and theatre streets where unnecessary noise must be avoided; Care and Caution Campaign in advance to avoid accident.

Stretching of hose lines and direction of streams.

Ventilation.

Signal Practice.

Inspection of Buildings.

Evolutions at Department Drill School.

Drill in proper use of tools and tying of ropes in practical operations.

Discussion of possible fires and conditions in all buildings where special hazards exist.

First aid and practice in Schaefer Prone Method of resuscitation.

Drill with apparatus should be conducted in front of company quarters or at a convenient nearby location and must be of most practical nature to train members in speedy and safe operation of pumpers, raising of aerial and portable ladders, etc.

Suggests a "Suction Test" Drill

In cities or towns having a sea or river frontage, or where creeks or cisterns afford an emergency water supply, it is suggested that the drill with pumpers include a "suction test." This may be done in the following manner: a barrel or similar container can be placed below grade in cellar; a water supply to same maintained by a hose line from a nearby hydrant; the

"LET no one believe, because all members of a fire company are "good firemen," that drills are unnecessary. With such drills regularly and uniformly conducted, the general efficiency and coordination of all units of a department will be materially increased and the results will be evidenced by better service at fires."

suction to be connected to pumper in front of quarters and the lower end placed in the barrel and pumper thus operated to take suction.

With such drills regularly and uniformly conducted, the general efficiency and co-ordination of all units of a department will be materially increased, and results will be evidenced by better service at fires.

Necessity for Drills

Let no one believe, because all members of a fire company are "good firemen," that drills are unnecessary. A baseball team of the greatest individual stars cannot compete with a fairly good team which practices regularly as a team.

In the stress of great emergency, previous regular training and drill will make difficulties appear ordinary conditions and prevent disorganization. The catastrophe at sea of the S. S. Vestris shocked the civilized world when an untrained, undisciplined crew gave an example of negligence and the lack of foresight on the part of the commanding officers was plainly shown.

In addition to the gain in efficiency in the performance of necessary operations at fires, drills and training will also result in the improvement of discipline and general organization of the fire department.

The Chief of any fire department may take justifiable pride in the work of his organization when he has had the foresight of planning for its constant progress and it will be through regularly drilling in quarters that both the adages of "Practice makes perfect" and "Practice makes purpose" will be achieved.

New York to Get $3,500,000 Improvements

By October 1, according to information made public by Commissioner John J. Dorman, more than $3,500,000 will be expended in obtaining sites for new stations and obtaining additional apparatus and men. The plan calls for the erection of twenty-five new fire stations, the appointment of 228 new firemen and officers, the purchase of a $350,000 fireboat, installation of $500,000 worth of new cables and fire alarm boxes, and the purchase of sixty pieces of apparatus.

Eleven fire houses will be in new territory some of which is now protected by volunteer firemen while the other fourteen buildings will be erected to replace obsolete structures. The approximate cost of each fire station will be $75,000. Fireboat houses costing about $25,000 each will be erected at the foot of East 90th street and Fulton street.

The new fireboat will be 130 feet long, gasoline and electric driven, and capable of making seventeen knots an hour. Orders have been placed for forty-eight hose wagons equipped with semi-water towers; seven pumpers, four aerial trucks and one water tower. It is expected that the hose wagons will be delivered by September 15, thus bringing the total pieces of apparatus from 645 to 714.

Al Herring Helps to Clean Up Murphysboro, Ill.

The mass at the right of the photograph is part of the collection of tin cans mobilized by school children of Murphysboro, Ill., to gain admittance to a local show. The clean up campaign was staged by Chief Al Herring in cooperation with local officials. Every child who brought fifteen empty tin cans to the show was admitted free.

By August 1, twenty-one firemen will become lieutenants, and seven lieutenants will be advanced to captains. The increase will enlarge the force to 6,500 men.

San Antonio, Tex., Fire Budget Reduced

The San Antonio, Tex., fire department will have to get along on a budget of $483,614.57 for the present fiscal year, a reduction of 5.4 per cent over the amount originally sought by Fire and Police Commissioner Phil Wright. As a result of the economy program, Commissioner Wright said the department would have to economize on the purchase of new equipment during the new fiscal year, which began June 1st. There will be no reduction in the personnel of the department, as was at first feared owing to the retrenchment program of Mayor C. M. Chambers.

In view of the fact that several new fire stations will be completed within the next few weeks and with the city facing an annexation program of a number of outlying suburbs, it is probable that some new apparatus will have to be purchased to man some of the new buildings, it is thought.

There has been some delay in the city receiving new fire and police signal boxes but it is expected this will be straightened out shortly. Some of the new police signal boxes have been received, but none of the more than 100 fire alarm boxes that were ordered have as yet been received.

A. B. COCHRANE.

Criticized, Firemen Return Home

After travelling three miles outside the town limits, the volunteer fire department of Monticello, N. Y., was criticized for arriving late at a fire. When the chief heard the comments, he told his men not to turn on the water.

"If that's the way they feel about it they can put their own fire out."

The fire was soon quenched with water brought from a nearby pond in buckets. The Monticello firemen were delayed because they had first to obtain permission from municipal officials before the apparatus could be taken outside the city limits.

Why Forests Must Be Protected

The California Fish and Game Commission in cooperation with the United States Forest Service has accomplished much in an educational way by displays made throughout California showing the before and after effect of fire. The intimate relation of a living forest and the pursuit of life by wild creatures is presented in a way few can forget. The live animals used combined to represent in a composite way as many important species of value and interest to the sportsman as could be associated together without too great a variance from actual fact. A pair of mallard ducks with their brood of young rafted on the small pond in the foreground: a covy of quail, bobbing in and out brush and about the trees hunting for food, and a young black-tailed deer oblivious to the attention of throngs of visitors, lent a naturalness to the set.

Desolation and charred trees in the burned forest area expressed the evil that forest fires do. A deer skelton took the place of the living animal in the live forest section. But the ducks and quail were gone. In their stead were two black vultures.

In an educational way, the exhibit accomplishes much. Young and old are able to understand it and learn something of the work of the Fish and Game Commission.

C. W. GEIGER.

California Firemen to Meet Soon

Plans are being made for the convention of the California State Firemen's Association to be held in Fullerton, August 7-9. The committee in charge of arrangements consists of Roy R. Davis, chief of the Fullerton Fire Department; L. J. Robeson, president of the Oregon County Firemen's Association, and B. H. Sleeper secretary of the same association. A show at which Hollywood stars will be present, a barbecue, swimming parties and other events have been arranged for the entertainment of the visitors.

Sacramento, Cal., to Survey Fire Alarm System—The city manager of Sacramento, Cal., has ordered a survey of the fire alarm system.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

SOME time ago it was generally believed that salvage work was a task purely within the province of insurance companies. Within the last few years, fire department officers have taken a more liberal attitude. They realize that they are appointed to cut down loss on property and that with the aid of salvage covers and salvage operations, that property is prevented from suffering water damage.

To do efficient work, it is necessary for the department to take every possible step to reduce losses in time of fire. The old day when all that was necessary was to pour tons of water on a blaze, is fast becoming a memory. Now it is the aim of each officer to extinguish a fire with the least amount of water possible, and with the least water damage.

The problem that is treated in this issue is printed in the box on this page. In the box on the following page is the problem that will be treated in the next issue. Should you have some comment on the next problem or if you have a question that you would like treated in this department, write to the "Round Table Editor," FIRE ENGINEERING, 225 W. 34th St., New York, N. Y.

Here Is the Problem

Should municipal fire departments do salvage work? What benefits results from efficient salvage operations?

The Problem

Chiefs are generally agreed that it is a good thing for the department to do salvage work. The replies received follow:

Richard L. Smith, Chief, Pittsburgh, Pa.: All fire departments that do efficient work in fire estinguishing practice salvage work more or less, whether they realize it or not. The only question involved, to my mind, is to what extent they carry their work of salvage, or whether they recognize it as such. The answer to the whole question boiled down is as follows:

It is a fire department's duty to save and protect life and property by whatever means possible. I think that is recognized and acknowledged by all firemen. Now then, a loss by water or caused by careless fire extinguishing is a loss just the same. If we, in our line of duty, are not going to make all proper efforts to protect our citizens' property from such loss, to all intents and purposes the said property and goods might just as well have burned. I think that is logical and based upon common sense.

I feel that municipal fire departments, therefore, are not doing their full duty to their respective communities unless they do practice salvage work to the fullest extent to which they are able and equipped to so do.

From the above, it is readily seen that the fire department will benefit by doing this work. First, you are going to cut down your total fire loss. We fire chiefs recognize the fact that in a great many fires, large and small, quite often the water loss is excessive and in some cases and under certain conditions, constitutes 75% of the total loss. This can be materially reduced by salvage work.

Also in some cases where salvage work is practiced, there are savings upon which it is impossible to put a monetary value. The protection of records, orders, accounts receivable and payable, etc., whereby the destruction of which would disrupt certain lines of business for six months to a year and a half, cases of which have come under my own experience.

As another result, where salvage work is taught and practiced, you will find that the average firemen will become more proficient and careful in the performance of his fire duties. It teaches him to prevent unnecessary damage to doors, windows, and in fact, all other parts of buildings, including the contents thereof. In fact, the tone and morale of the whole department will be brought to a more efficient standpoint.

Frederick S. Bullent, Chief, Rensselaer, N. Y.: Fire departments, up until the last ten years I would say, never thought much of trying to salvage goods in or near any fire. Their main object was to extinguish the fire. However, lately salvage work is growing in the various fire departments. I personally am a great believer in it.

About three years ago ten canvas rubber covers for salvage work were placed in my department. I am ready to say that these covers have certainly paid for themselves. However, I realize there are some departments that are unable to do salvage work due to a limited personnel. In these departments, of course, the extinguishment of fire is the only thing that can be handled. There are companies which are fortunate enough to have their own salvage corps. This is certainly a great thing. And further still, there are places where the Board of Fire Underwriters has what is known as protectives or salvage companies.

The benefits derived from salvage work are many. This operation shows that the men and heads are trying to cut down the water loss which is a very important factor in fire fighting. You will be surprised at the credit that will be given by both the public as a whole and the individuals. In time to come I feel sure, when the insurance companies see the fire department is trying to reduce the losses from all angles, salvage work will help toward reducing insurance rates.

Giles Dow, Chief, Stoughton, Wis.: We believe that salvage work is a proper function of the fire department. In working at fires it has always been our practice to carefully remove such contents of burning buildings as our resources permit, storing same where possible to avoid damage by the elements. We have many fires on shingle roofs. In extinguishing these fires we place receptacles on attic floors to catch the water and prevent its running down into the rooms to damage the plaster and wall paper. We make temporary repairs to burned roofs with tar paper and lath before leaving these fires. We believe that a set of tarpaulins would be a useful addition to our equipment.

Our experience has been that these operations have resulted in a great reduction of water damage and damage to contents from fire and breakage.

A. P. Allen, Chief, Ford City, Pa.: Yes, I think municipal fire departments should do salvage work. Fire departments, whether volunteer or paid, are organized for the purpose of controlling fire and to prevent loss to citizens of the city. I think salvage work comes under this head and that firemen should do everything in their power to keep down losses while fighting fires.

The benefits derived from efficient salvage work are exactly the same as those received from fire fighting except salvage work does not involve the saving of lives. By maintaining a salvage corps in the fire department

you train men in the careful use of hose streams. If this is not done, you often do more damage with the water than the fire itself would have caused.

Geo. M. Kellogg, Chief, Sioux City, Ia.: In cities where the Underwriters do not maintain a salvage corps I think that fire departments should do as much salvage work as they possibly can in connection with their regular work. Our department has always followed this policy.

Salvage work reduces the loss which is a benefit to the occupant and often keeps him in business where otherwise he might be forced to go out of business for a considerable time. It also reduces the loss to the insurance companies and last of all, it enables you to show a smaller loss on your annual fire department report.

J. J. Kuplic, Chief, Manitowoc, Wis.: I would say that fire departments should do salvage work if they have the men to do the work with. Our department is a small one, consisting of twenty-eight men. If we have time, we cover everything we can as we have a few covers. In case of a roof fire, we cover the hole in the roof after the fire is extinguished, unless the roof is entirely destroyed.

Salvage works cuts down the fire loss to a minimum. I have found that since we started using covers our fire loss has been much less than previously. In larger cities this may not work out so well unless there were special companies just assigned to do salvage work.

H. J. Callahan, Chief, Fort Dodge, Ia.: Yes, by all means, fire departments should do salvage work. This operation reduces fire loss which is a credit to the department. The saving of loss to uninsured property means a great deal to the individual. Salvage work is also of benefit to the fire department in that citizens are more satisfied with the work done and are less likely to protest against appropriations. The public becomes much better boosters of the department where effective salvage work is carried on. The salaries of the men can be raised much more easily where firemen are more valuable to the community.

James Welsch, Chief, Eau Claire, Wis.: Personally I am of the opinion that salvage work should be incorporated within the regular fire department activities as it is so closely identified with fire department operations. I also believe that the manual force of the department should be sufficient to carry on this work to the point of efficiency.

The benefits derived would be a reduced fire loss which should be recognized by the National Board of Fire Underwriters to the end that a more favorable basic rate be extended to any municipality properly equipped for salvage work. Quite often fire loss adjustments are rather discouraging to a conscientious fireman.

Frank H. Miller, Chief, Terre Haute, Ind.: We try to do all the salvage work we can in our town, and are praised by the people for doing it. However, the cold blooded attitude of the insurance companies toward the firemen in the state of Indiana still leaves the question in doubt in my mind.

Roland Elliott, Chief, Catasauqua, Pa.: Municipal fire departments should salvage everything possible. We have had very little experience along this line, as our fire loss is very small. We have three motorized trucks, one Mack triple combination truck and two smaller ones to serve our community of five thousand. My own idea is, however, that you never get enough money from the insurance company to replace that which was lost.

W. M. Seeley, Chief, Middletown, N. Y.: I would say most emphatically that fire departments should do salvage work. Our volunteer department has been doing salvage work for the past four years. We have twenty-four salvage covers twelve by eighteen feet, which are divided between seven companies. The second lieutenant is in charge of salvage work. In the past we lost thousands of dollars by water damage to stocks, furniture, etc. However, due to efficient training the men in charge of salvage work in our city have saved people thousands upon thousands of dollars from water damage. In my opinion, every fire department should have salvage blankets and trained men to do this work.

Wm. C. Mahoney, Chief, Peabody, Mass.: A number of fires in this city have been extinguished by the sprinkler system, as many as seventeen sprinkler heads having been opened at one time by a flash fire. The majority of these fires start on the upper floors. Thousands of dollars have been saved from damage by water because of the salvage work done by the fire department in covering and removing contents on the various floors.

On one occasion a dwelling house on the outskirts of the city caught fire. No water was available and chemical had no effect on the flames. The building was destroyed, but the contents of this house were salvaged. There was no insurance on the contents, and by saving them the occupants were able to establish another home without added expense of purchasing new furniture which they were unable to do.

Efficient salvage work can be the means of saving property that can never be replaced. It helps to keep down the loss from fire, and aids the individual who cannot buy insurance. It also helps a city to maintain a low insurance rate. It is obvious that salvage work is necessary in cities where there are no protective companies maintained by the insurance exchanges.

C. W. Ringer, Chief, Minneapolis, Minn.: The necessity of fire departments doing salvage work is evident by the water loss generally incurred while extinguishing a fire. In cities where there is no salvage corps, the fire department should carry covers and the members should be thoroughly schooled in salvage work. I would also suggest that volunteer departments make salvage covers a part of their equipment. In cities where there are well organized salvage corps, truck companies of the fire department should carry covers and members should be instructed in the use of them. In large cities, there are certain districts that it is impossible for the salvage corps to cover because of the distance to be traveled. Where these conditions exist, salvage covers should be carried and the work done by the fire department. The fire chief of today must practice salvage work as well as fire prevention and fire extinguishment if he expects to reduce the fire loss on his city.

The benefits derived from this work are many. There is a reduction of water loss which in turn reduces the total fire loss. Salvage work protects the uninsured, especially the small home owners in outlying districts. Where this work is done, the premises are left in an orderly condition so that adjustment of losses may be made more satisfactorily.

H. J. Becker, Chief, South Orange, N. J.: No, I do not think the fire department should do salvage work. When the department rolls in at a fire, they are kept busy doing just what they have been called to do. That is, put out the fire. I think the insurance companies who are being paid for carrying the risk should provide apparatus and equipment to do salvage work if they think they need it.

In answer to your second question, I would say the insurance companies benefit because of the reduction in fire loss. When fire loss is reduced, this would probably result in a reduction of fire insurance premiums which would benefit the property owner.

Wm. O'Neill, Chief, Weehawken, N. J.: Yes, I believe the fire department should do salvage work. However, a number of fire departments can not do salvage work because they have not enough members to properly man the apparatus. If the municipalities would appoint a sufficient number of men to the fire department and buy the necessary equipment, every chief would have his own salvage corps.

(*Continued on page* 655)

Here Is the Problem for the Next Issue

Do you respond to fire calls from rural or neighboring communities?

What charges, if any, do you make for covering such calls?

WITH THE EDITOR

Safeguarding Public Buildings

A few states have already passed legislation, and many more are now considering it, to make fire alarm protection compulsory in hospitals, hotels, schools, theatres, insane asylums, deaf and dumb institutes, and other public buildings. As might be expected, where such legislation is proposed there are certain to be loud voices of protest. And why?

Is human life so cheap that a public institution, or establishment catering to the public, can sincerely object to installing such protection from the standpoint of its cost?

Or is there some other reason, or motive, which prompts the objector?

Industry for some years back has considered the value of a human life at not less than $15,000, and this applies to the unskilled laborer rather than to the artisan or executive. If this low value alone were considered, establishments which catered to but one hundred persons, or which housed that number, would certainly be justified in spending a large portion of the $150,000 represented by human life for needed fire protection, which in its ultimate analysis means life protection. Hence, why all the commotion?

Fire chiefs in general have been ready to champion legislation making fire alarm protection imperative in such institutions and establishments, and certainly their judgment should be considered ahead of that of financially involved persons.

This movement to offer the public additional protection is a good one, and is justified from all angles. It is destined to succeed, but it may take a lot of effort and education to accomplish the desired result.

Unusual Perils of Firemen

Dangers incident to the battling with fire are by no means the only perils which beset the path of the average fireman. He is called upon many times to risk his life in rescue work that has nothing to do with the extinguishment of a blaze. As a matter of course, when a great disaster occurs, the fire department is the first to be called upon to render assistance to the unfortunates involved, whether it be flood, earthquake or whatnot.

But it is not alone in great cataclisms that the services of the city's fire fighters are requisitioned. A case in point was the recent collapse of two buildings in Montgomery, Ala., which, fortunately, occurred during the noon hour, and resulted in the injury of only three persons. A deep excavation had been made in the rear of the structures involved, and the two mercantile buildings slid into the hole, completely wrecking them.

When the authorities, believing that many persons were buried in the debris, sent in an alarm for the Fire Department, Chief Ingram and his men, at imminent risk to their lives, penetrated into the two lower stories of one of the structures, which were still standing, to search for victims. As the chief and a detachment of seven men reached the rear wall, one of the side walls collapsed, and it was only by flattening themselves against the part still standing, that they were saved from being crushed by the falling debris.

This is only one of the thousands of instances in which the fireman is called upon to risk his life in work that is outside of his exact duties. However, this is done uncomplainingly, for the work is a humanitarian one, and the fireman knows that he is more than a mere hired fire fighter. His job is to guard the city and its people from danger, primarily from fire, but he is often asked to help them when other perils assail them from time to time.

Thought Gas Tank Was Empty

What fortunately turned out to be a minor accident, but might easily have proved to be a very serious matter, occurred in an institute for blind children in the Bronx Borough, New York City, recently. Workmen were excavating for new buildings and a steam shovel revealed a forgotten gas tank near the structures of the institution. The tank was buried five feet underground, and when about to raise it, the workmen discovered it to be ablaze. The Fire Department was summoned, and streams were played upon the tank.

When the fire was apparently out, the men in charge of the steam shovel were instructed to hoist the tank which was thought to be empty, out of the ground. But as it was raised to the surface, flames burst forth twenty feet into the air, enveloping the men in the steam shovel and endangering the buildings of the institution.

By the firemen turning heavy streams on the flames, the workmen were enabled to escape, but they were so badly burned that they were sent to the hospital. The blind children were marched out of the buildings as a measure of precaution but the structures did not catch fire, and the blaze in the tank soon was controlled.

The authorities of the asylum should have made sure that the tank was properly emptied before exposing the workmen to the risk of fire and explosion in the act of removing it. In fact the very act of leaving a filled gas tank underground so near a public institution was an act of inexcusable thoughtlessness. The use of the tank had been discontinued when electricity super-

ceded gas as an illuminant for the institution. The excuse was that the hospital people thought the tank was empty, and safe for removal. Carelessness of this kind endangers not only the workmen, but also the members of the Fire Department called to extinguish the resulting fire.

Fireworks Claim Annual Toll

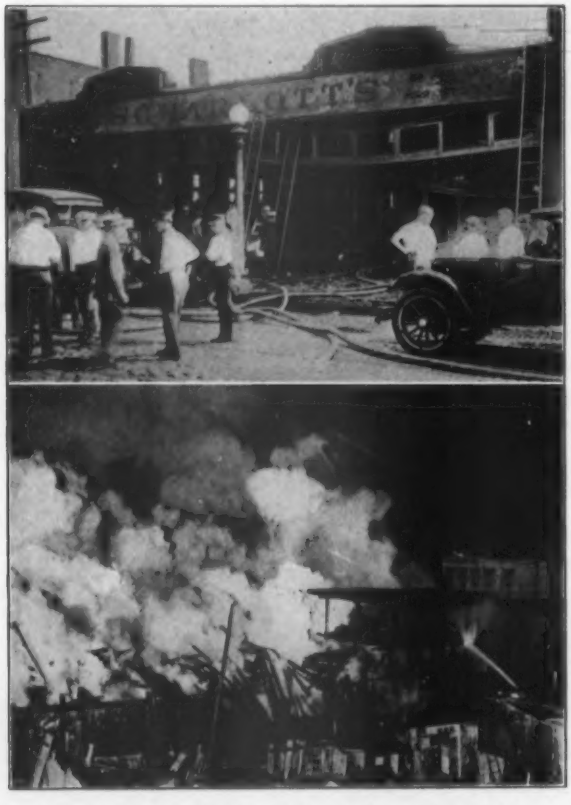
Following the observance of Independence Day on July 4 in many states, there are always reports of the damage done by fireworks and other explosives used to celebrate the occasion.

In many cities it is illegal to both sell and discharge fire works except under rigid rules. Near New York City, just outside the city limits, stands are erected to sell fireworks to automobilists who come out just for that purpose. Members of the police department made a number of raids on fireworks sellers within the city and confiscated large stocks of fireworks. This illegal stock was dumped on to the fireboat John Purroy Mitchell and then destroyed at sea.

Homes in Ridgefield, N. J., were shaken by an explosion that followed a blaze in the Hudson Fireworks Company plant in the sparsely settled section of Moonachie Township. About a thousand windows were shattered. No workmen were at the plant when the explosion occurred. The factory consisted of seven storage and work shacks. Fire companies arrived in time to prevent a complete destruction of the plant.

In St. Louis, Mo., a boy, two young girls and a woman were burned to death when fireworks on display in the F. A. Scharlott 5 and 10 cent store were accidentally ignited, presumably by a short circuit in the electric light wiring. Fire was spread by the shooting fireworks and completely enveloped the store in but a few minutes. Many persons had to flee from the store with their clothing on fire.

Firecrackers carelessly thrown by small boys are believed to have caused a fire that swept through lumber piles and frame buildings of the lumber yard of M. Blumberg & Co., Brooklyn, N. Y. The fire developed to such proportions that a large gas tank nearby was threatened. The large stock of flammable material helped to spread the flames. Members of the New York Fire Department had a stiff fight before them before the blaze was considered under control.



Two Fires Attributed to the Craze for Fireworks

Four persons lost their lives in a fire that destroyed a 5 and 10 cent store in St. Louis. Lower—Lumber yard fire in Brooklyn, believed to have been started from firecrackers.

Even New York Has Its Fireworks Problem

Confiscated stores of fireworks were loaded on to a fire boat and then dumped out at sea. The photograph gives some idea of the amount of fireworks confiscated.

Forest Service Teaches Fire Prevention

"What Price Fire," a thrilling motion picture showing how Dan Crockett, a miner and packer won an uphill fight against the red enemy of the forest, was the main attraction of a fire prevention campaign put on by the United States Forest Service in northern California. The picture was taken in the Mt. Shasta, Klamath River, and Marble Mountain regions of Siskiyou County, with local settlers as the leading actors.

The educational fire prevention campaign started at Redding and covered 115 cities and towns within and adjacent to the Shasta, Klamath, Trinity and California National Forests, and along the Redwood highway from Crescent City to the San Francisco Bay. A show was given each night, except Sunday, in different towns and was free to all. In addition to the three reel story, "What Price Fire," there was a movie entitled "She's Wild" with bronco-busting, steer roping and tying and other exhibitions of cowboy prowess, and a brief talk, illustrated with colored lantern slides, showing the loss by fire of valuable timber, recreation, and fish and game resources.

To carry on this campaign in northern California, the Forest Service equipped a truck with an electric generator, motion picture projectors, stereopticon lantern screen, and other necessary paraphernalia for putting on a complete movie show not only in large towns but even in out-of-the-way settlements.

C. W. GEIGER.

Roland, Ia., Sets Price for Protection—Those who have not subscribed to the apparatus fund of Roland, Ia., will be charged seventy-five dollars for each fire.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified.

Raising 50-Foot Extension Ladder

To the Editor:

Will you please answer the following question:

How far from the side rails will the men with the tormentors stand when raising and lowering a 50-foot extension ladder?

F. L. B.

Answer: When raising a 50-foot extension ladder, the men on the poles keep the poles straight out under the beams, for if they are not kept directly under the beams, the top of the ladder will be thrown over.

The following general instructions on the raising of an extension ladder will show you just the steps necessary to be taken:

45-foot Extension Ladder (five men) raise and place: Lay ladder lengthwise with building, working side up and inside beam out about ten feet from building, butt end in line with centre of window where it is to be placed. The five men are placed as follows: One man at the butt, two men at the beams, about eighteen feet from the butt, one man each side of the ladder, two men back about five feet from top of ladder to handle poles. The butt man releases ends of the poles and moves same out a few inches from the side of the ladder. He then butts ladder by stepping on bottom rung, heels up tight to rung and sides of feet up close to beams and squatting down grasps third rung with both hands. The beam men raise poles up off ground and swing same over to the pole men. These men lay poles on ground, run to the ends of them and pick them up, grasping them with both hands, the right hand close to the end and the left hand up about two feet from the end. The top of the ladder is now lifted up off the ground by the beam men, the man on the outside beam grasping it with the right hand and the man on the inside beam grasping it with his left hand. When the ladder is up off the ground, they grasp the under side of the beams with their hands and then shift one hand to the lower beam, and lift the ladder up high enough so they can get underneath it. They then start raising it up by pushing hand over hand on beams, and walking toward butt of ladder. As soon as ladder is up high enough so that men on the poles can push with same without moving the butt, they start and push with the poles, at the same time running toward the butt of the ladder. Keep the poles straight out under the beams, for if they are not kept directly under the beams, the top of the ladder will be thrown over. As soon as the ladder is up straight, the butt man removes his left foot from the ladder and places both hands up against the beams, the man on the inside assumes the same position as the man on the opposite side of ladder. The outside beam man steps around facing outside beam and grasping same with both hands, left hand up and right hand down, and spread apart about two feet. The pole men now pass with poles to the opposite side of the ladder, keeping their eyes on the top of the ladder, while doing so. The butt man then faces the building and takes his position with left side close to the rungs, grasping second rung with left hand and the rung above his head with the right hand. The inside beam man assumes a similar position on the opposite side of the ladder, except that his right side is close to the rung and grasping second rung with right hand and upper rung with left hand. These two men now lift the ladder up off the ground and take a quarter turn to the right and then lower it to the ground. While the ladder is being turned, the men with the poles move around to the left, keeping top of ladder steady. Man on outside beam also assists in keeping ladder straight while it is up off the ground. After ladder is turned, the butt man steps onto bottom rung and places both hands around beams. The two beam men run up the extension by pulling down on the rope hand over hand. When extension is up and locked in proper position, the beam men take their position behind ladder, hands on the beams the butt man removes his hands from around beams and grasps a rung about waist high. The ladder is allowed to drop in against the building by the pole man walking in toward the building and holding it back with the poles, the beam men assisting by stepping backward and holding back on the beams. The pole men place the poles and the outside beam man makes the rope fast by taking several turns around second and third rungs and two half hitches around rope between these two rungs.

Rescue of Person Trapped in Elevator

To the Editor:

I will appreciate your answering the following question for me:

Question: How would you rescue a person caught between the fourth floor and a passenger elevator?

Very truly,

K. N.

Answer: The fire department procedure in this matter would be to immediately transmit call for rescue squad, if the department maintains such, and an ambulance. On the other hand, if a rescue squad is not available, then the fire department wrecking car and an ambulance would be summoned.

In the meantime, efforts would be made to release the person. To back the car up would be dangerous in that it might end fatally for the victim. He must be released without movement of the car. The car floor frame is constructed of metal so that it cannot be chopped away to release the man; an acetylene blow torch would be brought into play to cut out a section of the floor frame and thus accomplish the desired purpose. Before doing this, however, as a precautionary measure it will be necessary to brace the car from the floor below. This may be done by using pieces of timber of proper length, and 4 x 4 or 6 x 6 inches in cross section. Upon arrival of the ambulance, a surgeon will take care of the victim and do whatever first aid work conditions permit.

In some cases the car can be sprung back by use of jacks, but in modern buildings the construction of the elevator cars is such as not to permit this method of releasing a person so trapped.

Advantages of Large Suction

To the Editor:

Some manufacturers of fire apparatus use 5 inch suctions on pumpers having a capacity of 1,000 gallons at 120 pounds pump pressure, while other use 6 inch suctions on pumpers of the same capacity.

Would you kindly inform me through the columns of Fire Engineering what the advantages in the use of either size suction are. Whatever other data you may wish to include on this subject will be appreciated.

J. T. N.

Answer: Probably the only real advantage of using 6-inch suctions instead of 5-inch suctions on pumpers having 1,000 gallons capacity at 120 pounds pressure is the slightly greater lift which the 6-inch suction will make possible. As an example, with two lengths of 5-inch suction, a pumper discharging 1,000 gallons per minute could lift the water effectively 14½ feet. Above that, there would be an appreciable loss of power, due to the possibility of a vacuum being created on the intake side of the pump. With a 6-inch suction, water could be lifted through two lengths of suction approximately 19 feet with maximum effectiveness.

On the other hand, where hydrants are being employed and where there is fairly satisfactory pressure at the hydrant, there would be no appreciable difference in the performance using 6-inch and 5-inch suctions.

Brown Renamed Chief for Nineteenth Time—Charles M. Brown was re-elected chief of Midland Park, N. J., for the nineteenth time.

Shears That Cut Through Iron Bars

Fire departments operating in cities that have a large number of iron grated windows that might prove troublesome in case of a blaze, may be interested in a shears that is available to eliminate this trouble.

The shears are operated by means of a lever and a ratchet through a steel cable and an arrangement of pulleys in such a way that a powerful leverage is exerted by the handles attached to the cutting jaws. There are two pawls upon a ratchet, both of which are equipped with releases or throw-out for freeing the operating lever so as to allow the cable to run free.

To operate the shears after the jaws are in the wide open position, the two pawls are engaged, then the operating lever is moved back and forth, thereby tightening the cable which closes the jaws. Usually the operating lever is moved in short strokes so as to move the ratchet only two or three teeth at each stroke. This gives the most effective leverage that a man can exert through his arms.

Washington, D. C., has three of these bar cutters. One each is carried by two Rescue Squad companies, the other one by a down town truck company. The shears has a

Shears in Operation by Washington, D. C., Firemen

maximum capacity of ¾-inch bars and cut through the bars in eighteen seconds. Only mild steel should be cut in order to preserve the cutting edge of the shears.

Newark Incendiary Sent to Jail

(*Continued from page* 634)

of Brooklyn, N. Y., manager of the plant. He was brought to trial at Bridgeport on a charge of arson, found guilty and sentenced to a term in prison of from two to three years. With the conviction of Segal, State Attorney William H. Comley did not end his investigation. On September 18, 1928, a year and four months after the fire, Kirschenbaum was brought to trial before Judge E. P. Dickenson and jury.

The state produced Segal, as its chief witness. He told a story of conspiracy with Kirschenbaum to take goods already damaged by fire in a New York factory, to the Bridgeport address and of setting the fire.

Segal in his testimony, from which he could not be shaken, told all the details of the fire. The hiring of the "fire bug" was left to Kirschenbaum while Segal, to confound the insurance officials, conducted an alleged business with poor and inefficient machinery which was heavly insured by him.

The defense offered a direct contradiction to Segal's story and wrung from him the admission that he had chaffed under the prison sentence and felt that Kirschenbaum should join him there. The appeal was taken to the Supreme Court of Connecticut upon the main contention that the presiding judge wrongfully charged the jury under an amendment to the General Statutes that did not exist at the time of the fire. The opinion of Chief Justice Wheeler closes the case.

THOMAS F. MAGNER.

Yonkers, N. Y., Appoints More Men—Nine new firemen have been added to the Yonkers, N. Y., department. On January 16, thirteen new appointments were made.

Hero of Windsor Hotel Fire, Dies

William Clark, deputy fire chief of the New York Fire Department, better known as the hero of the Windsor Hotel disaster back in 1899, and cited for bravery on many other occasions, died suddenly in Rockaway Beach Hospital as the result of meningitis of the brain. He was fifty-six years old, and in good health until two days before his death. Mr. Clark was on his vacation since July 1, and was spending his time swimming in the surf. It is believed that constant buffeting about by the waves may have developed an abscess in the ear and that caused inflammation of the brain covering.

Mr. Clark joined the fire department in 1895. He was a stone-cutter by trade and had served in the U. S. Navy. On six different times he was placed on the Roll of Merit. But it was his spectacular work in the Windsor Hotel fire that placed him in the limelight.

The hotel located at Fifth Avenue and Forty-Sixth street, caught on fire March 17, 1899, just as the St. Patrick's day parade was passing. Forty-five guests perished and hundreds of others were severely burned.

Clark working with another firemen made a half dozen rescues with the aid of scaling ladders. They were being urged to rest when a woman and her negro maid stranded on the fourth floor called for help. As they were about to rescue these two, another woman screamed from an adjoining room and threatened to jump. He worked his way from one sill to another and assisted this woman across, after which the three persons were rescued. For these feats he received the Gordon Bennett medal.

He was made lieutenant in 1900, captain in 1903, chief of battalion in 1910 and deputy chief in 1925. He was in command of the Fourth Division.

He is survived by his wife, two daughters and three sons. Chief Clark was a member of the Firemen's Cycle Club.

Stillman Yacht Destroyed by Explosion

"The Modesty," a luxurious pleasure yacht which figured in the famous divorce trial of James A. Stillman, and now known as Wenonah II, was blown up by an unexplainable explosion while anchored at Glen Cove, L. I. The first officer, who is missing, is believed dead. Two thousand gallons of high test gasoline had been taken on, and the refuelling boat had just pulled away, when the explosion occurred.

The explosion hurled the smokestack high in the air and the yacht crumpled immediately amidships. Attempts to get close to the ship were foiled by the intense heat.

Pension Tax Levied in San Antonio

San Antonio, Tex., city commission has passed an ordinance authorizing a 1-cent special tax levy to raise funds for the fire and police depattment pension funds. This tax will raise $20,000 for this purpose, according to Phil Wright, Fire and Police Commissioner.

Owing to heavy demands that have been made on the fund for some time past, it was dwindling at a rapid rate and would not have lasted the remainder of the year if it were not for the tax levy.

Approximately $30,000 yearly is paid out for pensions to widows of firemen and policemen and to disabled and retired members of these departments.

San Antonio Improves Fire Alarm

With the arrival of thirty of the 110 new fire alarm boxes ordered by Phil Wright, Fire and Police Commissioner, work on the $25,000 expansion program of the fire and police signal system is at last under way under the direction of City Electrician Claude Convers. The remainder of the fire alarm boxes are expected to reach here without much delay.

Approximately 4,000 feet of underground cable will be laid, connecting the new boxes with the present system, and running from the business district to points in residential sections where overhead wires are used. Additional equipment in fire alarm headquarters and at sub-stations also is provided for out of the $25,000 appropriation.

A. B. COCHRANE.

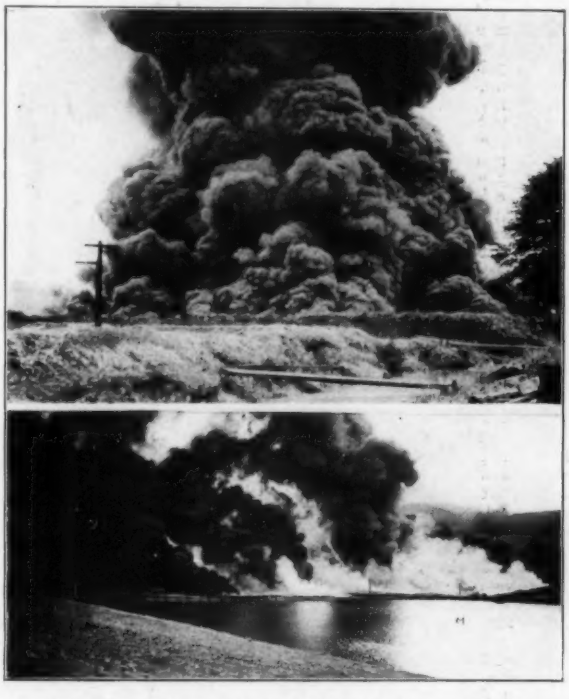
Port Jefferson, N. Y., Apparatus Runs Limited—After September 1, fire apparatus of Port Jefferson, L. I., N. Y., will not be taken outside of the fire district except on the urgent call of an outside fire company.

OIL TANKS STRUCK TWICE BY LIGHTNING AT INGOMAR, PA.

Volunteer Firemen Successful in Preventing the Spread of Fire to Nearby Tanks—Crash of Roof Damaged Valves Controlling Outflow

By WILLIAM E. PATTERSON

AFTER hurling a menacing pillar of flame and great clouds of heavy black smoke into the heavens for more than fifteen hours, fire in a twenty-five thousand barrel oil tank of the National Transit Oil Company, a Standard Oil subsidiary, located at Ingomar, McCandless Township, Penna., about eight miles north of Pittsburgh on the Perry State Highway, had almost burned itself out at



Volunteer Firemen Have Difficult Fire to Fight

Upper—View of affected tank after the contents had boiled over and the roof had crashed in. Lower—A photograph of the tank yard and the water supply lake. It furnishes a very good view of the intensity of the fire.

noon on Monday, July 8th. The oil tank was struck by a bolt of lightning.

The huge tank, twenty-five feet high, was struck twice by lightning on Sunday evening, July 7th during a heavy electrical and rain storm. Lightning ripped a great hole in the top of the tank, and the accompanying explosion of gases in the tank practically blew the entire top of the tank off. The roof fell into the tank, wrecking the lift valves and making it impossible later to drain the tank.

Firemen from Ingomar, Perrysville, Wexford, Highland, West View, Allison Park and other surrounding communities, all volunteers, responded at the summons of the plant whistle and battled the flames throughout the night, and the following day.

Hampered by lack of equipment for fighting such fires, the community fire companies were forced to abandon the oil fire and to concentrate their efforts on seven other nearby tanks of similar capacity. Streams of water were kept playing constantly to prevent the tanks from becoming overheated and catching fire. One of the seven tanks, which the burning tank threatened, was surrounded by flames for a short time but fortunately did not ignite.

The climax took place at four o'clock on Monday morning, when the top half of the tank, which had become almost white hot from the intense heat of the flames within, buckled and the oil boiled over. A great sheet of flame leaped hundreds of feet into the air, and thousands of gallons of burning oil flowed over earthen fire banks surrounding the tank. The fire reached across the highway where spectators had stood just a few minutes before the tank buckled.

The burning oil from the tank poured into Pine Creek, a small stream nearby, and ignited a wooden bridge just a short distance below the burning tank. Firemen, however, succeeded in controlling the flames there in a few minutes and again turned their streams of water on the surrounding tanks.

Twice during the all-day fight to control the fire and extinguish the burning tank, the burning oil boiled over in minor outbursts, but did not cross beyond the earthworks which the oil company has built around each tank as a fire protection measure.

During the early morning hours when the fire was raging at its height, volunteer firemen were forced to spray the barn and trees of the Pittsburgh Home for Working Girls, above the oil plant. Trees and foliage for approximately a mile were destroyed by the heat, and fields of grain and garden produce in adjoining sections were destroyed by the extensive ground fires that followed the boiling-over of the tank.

When the tank boiled over, hundreds of spectators and the volunteer firemen were forced to flee for their lives. Crowds of motorists attracted to the scene by the intense glare of the fire (visable for a radius of over twenty miles) were kept at a safe distance by the volunteer firemen.

A special chemical crew from one of the oil refineries in Oil City, was sent to the fire early on Monday morning, shortly after daybreak. They tried to extinguish the fire with steam apparatus, but in spite of the efforts, the fire was still raging late Monday night.

The group of tanks are located at what is called the Nedskay pumping station, about a half mile from the new North County Park of Allegheny County.

Early estimates of the loss was placed at approximately $50,000 by company officials. About $25,000 of this was due to the loss of the huge tank, and the remainder to the oil consumed by the fire.

Racketeers Charged With Bronx Fires

Malicious intent or the work of racketeers is blamed for the many fires in apartment houses under construction in the Bronx section of New York City. Three fires of very suspicious origin have accurred in less than three weeks. The last one did $150,000 damage in an unfinished six-story apartment house for which it was necessary to turn in three alarms.

John E. McGeehan, district attorney, is inclined to believe that these fires are the work of racketeers. He requested the Police Department to assign a patrolman to every building in the course of construction. It is intended that the patrolmen be assigned for duty just as soon as the building is ready for plastering. According to building trade officials, there is a row among boss plasterers.

The Bronx fire was discovered at 8:30 a.m. on the third floor of the north wing of the structure. Before the blaze

Another Apartment House, Under Construction in Bronx, Destroyed

was under control, flames had swept through the upper three floors of the south wing. The walls were unplastered and a breeze fanned the fire through the unframed windows. The flooring and wooden laths on the walls were destroyed, and the roof crashed in. Cracks developed in the wall and it is now necessary to reconstruct the damaged portion.

While the fire was in progress, Chief Kenlon was attending the convention of the Eastern Association of Fire Chiefs at the Hotel Pennsylvania. When told of the blaze he stated that in his belief it is the result of gross carelessness or malicious intent. Chief Kenlon objected to the use of wooden lath in buildings of this type.

Firemen had a three-hour fight while police reserves established fire lines two blocks away.

When the roof collapsed, flaming embers set fire to a row of wooden houses. The roofs were ignited, but not much damage was done. A squad of firemen were assigned to wet down the buildings in the danger zone.

The last previous Bronx apartment house fire, occurred on June 25 when a $1,000,000 building being erected on Jerome avenue, was practically destroyed. On July 2 a similar blaze wrecked a $200,000 building under construction.

An investigation was started by Commissioner John J. Dorman, and he stated that he would seek a change in building regulations to compel the completion of one floor by plasterers before work was begun on another.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending July 12

FOREST PARK, ILL.—Wanner Bros. paint store..... 80
SOUTHAMPTON, N. Y.—A. E. Schermerhorn cottage, Lake Agawan 50
BLOOMINGTON, ILL.—Jefferson St. business property..... 25
FREEPORT, ILL.—Rokhar bakery damaged..... 30
YORBA LINDA, CAL.—Plant of Yorba Linda Citrus Ass'n..... 250
OMAHA, NEBR.—Bldg. of Brinn & Jensen Co..... 80
PRESTONBURG, KY.—Morrell Supply Co., adj. property..... 65
WILLIAM PENN, PA.—Property owned by Mrs. C. Thompson.... 25
SPENCER, N. Y.—Seeley mill and Borden Milk Co..... 25
MAGNOLIA, ARK.—Bldg. of Magnolia Grocery Co..... 110
WILMER, TEX.—Business bldg. housing post office..... 40
LAURENS, S. C.—Traynham bldg. damaged..... 50
BROWNSTOWN, PA.—Bldgs. on farm of Eli Landis..... 25
GLOUCESTER, MASS.—Water-front property, Rocky Neck dist... 50
BROOKLYN, N. Y.—Lumber yard of M. Blumberg & Co..... 350
COLUMBIANA, OHIO—Power House of Columbiana Water Co.. 25
TOLEDO, OHIO—Standard Oil Co., tank at Otter Creek 40
PITTSBURGH, PA.—Oil tank of Nat'l Transit Pipe Line Co. 75
RAYMOND, ME.—Barn on Chas. Davis farm 25
WALLA WALLA, WASH.—The Dagne and Donovan whses 25
PORTLAND, ME.—Storeohuse of Kerr & Houston 25
NEW YORK, N. Y.—Government whse, 72 Front St. 175
KALMATH FALLS, OREG.—Mill of Kalmath Pine Lumber Co... 100
HAYWARD, CAL.—Hunt Bros. packing plant destroyed 65
N. BEVERLY, MASS.—Bldgs. on the H. P. Hood Cherry Hill Farm.. 40
WESTHAMPTON, MASS.—Mill of F. A. Loud Lumber Co. 40
TORONTO, ONT.—Goodman's fur shop, Spadina Ave. 40
ST. LOUIS, MO.—Whse. of Ralston Purina Mills Co. 80
RED LENEL, ALA.—Adams saw mill, adj. property 35
RED OAK, IOWA—Red Oak garage damaged 25
LITCHVILLE, N. DAK.—Ten buildings destroyed 45
STAMFORD, CONN.—G. C. Murphy store damaged 45
NASHVILLE, TENN.—Laundry plant, Tenn. State Prison 25
CARLISLE, KY.—Kimbrough Hotel, adj. bldgs. 25

Week Ending July 19

FORT WAYNE, IND.—Main Auto Supply Co. 70
WEST CHESTER, PA.—Stock barn of Delchester Farms 80
PHILADELPHIA, PA.—Reading R. R. pier, adj. property 250
VANCOUVER, B. C.—Property of London Bakery 60
ELIZABETHTOWN, PA.—Farm bldgs. of Irvin Helsey 25
MAPLESVILLE, ALA.—Wiggins planing mill, adj. bldgs. 25
BEDFORD HILLS, N. Y.—Bldgs. in business district 80
WAUKESHA, WIS.—Bldg. of Furniture Specialties Co. 60
FRANKFORD, A.—Plant of F. B. Plumb Co. 80
PITTSFIELD, MASS.—North Union block damaged..... 30
OTTAWA, ONT.—Whse. of Mayno Davis Lumber Co..... 30
NEW WESTMINSTER, B. C.—Plant Westminster Paper Co., adj. bldg. 1,000
CENTER, TEX.—Business property of T. E. Jones..... 30
CHICAGO, ILL.—Broadway store of Jacob Eye..... 150
HOLLYWOOD, CALIF.—Studios of Tec-Arc company..... 65
NEW WESTMINSTER, B. C.—Manin bldg., Provincial Fair... 400
GLEN COVE, N. Y.—J. A. Stillman yacht destroyed..... 160
MUSKEGON, MICH.—Crude oil barge destroyed..... 35
PHILADELPHIA, PA.—C. F. Simmon's Sons plant and sheds..... 125
WAWAWAI, WASH.—Riverside Orchards Co., adj. property..... 40
MICHIGAN CITY, IND.—Risclay Brick plant damages..... 40
ELGIN, ILL.—Kane Co. Kennels Club destroyed..... 40
BOSTON, MASS.—Bldg., 24 Canal Street, damaged..... 40
WHITMORE LAKE, MICH.—Citizens' Ice Co. plant destroyed..... 80
INWOOD, N. Y.—Adams Lumber yard and adj. property.....$250
WEST NEW BRIGHTON, S. I., N. Y.—Nat'l. Dry Dock & Repair Co. & adj. prop..... 430
DEER ISLAND, Mass.—House of Correction damaged..... 85
COVINGTON, TEXAS—First State Bank Bldg. destroyed..... 35
OAKBURN, Man., CAN.—Oakburn Hotel and adj. prop..... 25
BROOKLYN, N. Y.—Atlantic Basin Iron Wks. damaged..... 25
SEATTLE, WASH.—Union Pacific dock destroyed..... 225
MOOSEJAW, SASK, CAN.—Imperial Lumber yards destroyed.. 170

Deputy Chief Frank C. Loxterman Dead

Deputy Fire Chief Frank C. Loxterman, a member of the Pittsburgh Fire Department for over thirty years died on Friday evening, July 12 after an illness of less than one week from an attack of erysipelas. The disease started from an infection of a small pimple on his upper lip under the nose.

Chief Loxterman consulted Dr. Daniel E. Sable, Chief Surgeon of the Fire and Police Departments on Monday, July 8th, relative to the infection and received treatment for same, after which he went to his home. He continued to grow worse and on Wednesday was ordered by the doctor to go to the Municipal Hospital for treatment. On Thursday, in spite of treatment, he became unconscious, in which state he remained until he passed away.

The Late Frank C. Loxterman

Chief Loxterman joined the fire department on April 21, 1898 as a substitute hoseman. Upon being appointed to a regular position a short time later, he was assigned to Engine Company No. 16 as a hoseman, holding this position until July 1, 1899. He was promoted to Lieutenant of Truck Company No. 9. On November 1, 1904, he was promoted to captain and assigned to Engine Company No. 4, a busy company on the outskirts of the downtown business district. On October 1, 1918 he was promoted to training school instructor and assigned to the Firemen's Training School, located at Engine House No. 14. On May 1, 1921 he was promoted to battalion chief and assigned to the Third Battalion in the Lawrenceville district. He remained with this battalion until he was promoted to deputy chief of the department, January 16, 1924.

Chief Loxterman was born in Pittsburgh, Pa., May 7th, 1874 and was fifty-five years of age at the time of his death. Before entering the fire department, he was a carpenter.

At the time of his death, he and Deputy Chief Frank G. Jones, who worked on the opposite turn or shift, were in command of the Fire Department for Chief of Department, Richard L. Smith, left Monday evening to attend the convention of the Eastern Association of Fire Chiefs, in New York City.

Funeral services were held from his late home, 926 Aiken Avenue, on Friday morning with a solemn high requiem mass in St. Pauls' Cathedral at 'Fifth Avenue and Craig Street at nine o'clock. The remains were escorted from his late home to the Church by a detail of 325 uniformed firemen, with Deputy Chief Frank G. Jones and Battalion Chiefs, Fred Beckett, William Graves, Herman Weihrauch, Henry Schwarz and Martin Loebig acting as pallbearers. Following the services at the Church, the cortage moved to Calvary Cemetery where interment took place.

Among the many personal friends and associates of the late Chief, connected with the fire service outside of Pittsburgh who attended the funeral, were Charles E. Clark, Secretary of the Pennsylvania State Firemens Association, Captain John Deen of the Lancaster, Pa., Fire Department, Michael Quinn, Chief of the McKeesport Pa., Fire Department, William H. Sharrah of Braddock, Pa., a member of the Pennsylvania State and the Western Pennsylvania Firemens Association and Reverend William E. Campbell, of Hilltown, Bucks County, Penna., a former Chaplain in the Philadelphia Fire Department.

Chief Loxterman in addition to being a member of the Pennsylvania State Firemens Association was a member of the Eastern Association of Fire Chiefs, the Firemens Death Fund and the Firemens Memorial Association.

Chief Loxterman leaves his father, A. J. Loxterman, two brothers, Walter A. and A. F. Loxterman and one sister, Mrs. Irene Kreuder of Linhurst, L. I., N. Y.

WM. E. PATTERSON.

Morris Heads Six-County Firemen—Arthur Morris of Sunbury was elected president of the Six-County Firemen's Association at the convention held in Nanticoke, Pa. Fred Zeiser of Shamokin is secretary.

FIRE WILL NOT WAIT

Our service department rules keep your apparatus in fighting trim

If accident puts your apparatus in the repair shop, your department may be seriously crippled. You need replacement parts—and you need them P. D. Q.!

There's one rule of our Service Department that is never violated—"No quitting time until the parts are on their way". No one can break that rule. There can be no delay in our service to you. Often in emergencies someone follows the shipment through—day or night, making connections with auto, on train. Several times special aeroplane shipments have been made in order to get apparatus back in service.

85% of all parts needed for any piece of American-LaFrance apparatus in service, have been shipped within 24 hours after the request was received. That record means *added* protection for every city having American-La France apparatus.

Literature describing American LaFrance apparatus and fire department supplies, will be sent on request. Write American-La France and Foamite Corporation, Engineers and Manufacturers, Dept. A-38 Elmira, N. Y.

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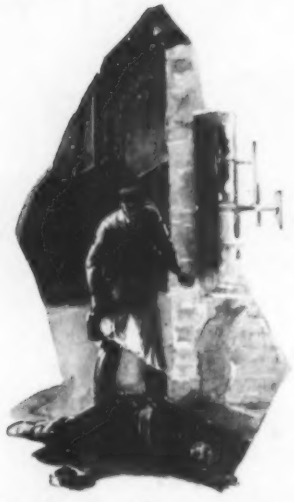

An actual occurrence at a plant at St. Paul, Minn. (name on request).

Watchman falls from foundry roof . . . A. D. T. responds.

This watchman's signal was not received at the A. D. T. Central Station when due at 7 P. M. An A. D. T. Roundsman was despatched immediately and found the watchman in severe pain, having fallen from the foundry roof after pulling the box located there.

The plant would have been without protection but for the prompt operation of the A. D. T. Watchman's Supervisory Service. The owners were notified immediately and the A. D. T. Roundsmen patrolled the premises until relief arrived.

A. D. T. Protection Services are specified for sure, dependable protection. They help to keep fire losses at a minimum, thereby increasing the efficiency of your own fire fighting organization. Ask for complete details.

A.D.T. SYSTEM

Controlled Companies of
American District Telegraph Co.
183 Varick St., New York, N. Y.

A typical A. D. T. Central Office where coded fire alarm signals are received and immediately transmitted to the fire department.

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Hundreds of Fire Departments have installed H-H INHALATORS for the successful resuscitation of victims of carbon monoxide poisoning, gas asphyxia, electric shock, drowning, etc. The H-H INHALATOR is officially approved by the Association of Police and Fire Surgeons and the American Gas Association. Our representatives will be pleased to arrange a demonstration whenever you say.

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FIRE HYDRANTS
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DOMESTIC
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HIGH PRESSURE
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All operating threads are dry, being above the stuffing-box.

No toggles, no small, quick-wearing parts.

All moving parts are bronze or bronze-bushed.

The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

An easily installed
EXTENSION SECTION
readily adapts them to new grade.

VALVES and BOXES
CAST IRON PIPE
Sand-Cast or "Sand-Spun"
FITTINGS

R. D. WOOD & CO., Phila., Pa.

Eastern Chiefs Plan Fire College

(*Continued from page 632*)

in fire discussions. The science of fire protection has not yet been even scratched. He concluded by remarking that "no competent officer will ever run out of material".

Round Table

The round table was very efficiently conducted by Chief Kenlon. Not only did he present questions for discussion, but he encouraged the delegates to offer comments on the topics presented.

To start the round table discussion, Chief Kenlon read a letter which had been received from Senator Carter Glass of Virginia, protesting against the noise created by fire apparatus in responding to fires, as well as returning therefrom.

"Can we afford to insist upon less sounding of bells, sirens and whistles," asked Chief Kenlon, "particularly in returning from fires?"

Chief Waldron in offering the first comment on the question, emphasized the present traffic condition of the streets and pointed out that the signalling equipment provided was provided with a definite purpose, and it should be used in clearing a lane for the purpose of apparatus going to fires. But on returning from fires, the Second division, of which Chief Waldron is head, does not permit the sounding of sirens. As Chief Waldron noted, "some departments sound their sirens to announce to the public that 'we're on our way to a fire'."

Insofar as ringing the bells are concerned, on returning from fires, this is done in many cases to attract the attention of traffic cops on fixed posts, so that the police officers will know in which direction the apparatus is going to turn. Chief Waldron insists that his drivers follow the traffic lights on returning from fires. Many accidents, he added, are caused when apparatus is returning from fires, and such can be avoided by observing traffic rules.

Battalion Chief Rankin: "With the present traffic conditions I don't think it is possible to make too much noise in going to a fire. Returning from a fire is a different question, and bells only should be used. By this method, if consistently followed, the public will soon get to know when the apparatus is responding to alarms, and they can be expected to cooperate more fully with the fire department by opening up traffic lanes for apparatus responding to such alarms."

Chas. Fischer emphasized the importance of the question and described several instances which he had witnessed and which showed the necessity of an agreement on the subject. He urged departments to check reckless driving when returning from fires.

Chief Richard L. Smith, of Pittsburgh, questioned why signals should be used on apparatus if not for clearing traffic. He urged that they be used to best advantage for that purpose—getting to the fire—but he saw no necessity for sirens sounding when returning from a fire. He prefers charges against men and officers for accidents to apparatus or to public or private property when returning from alarms. The result has been a very large decrease in the number of such accidents. He believes that traffic rules should be rigidly obeyed upon returning from fires.

Chief Ross Davis, of Philadelphia, instructs his officers to sound the bell and whistle when going to fires, but on returning from fires he requires that they observe all traffic rules. He also insists upon no unnecessary sounding of devices upon passing hospitals and buildinges of public assembly.

Chief Kenlon said that in presenting the question he had in mind the complaints which are constantly being received. At one time he had planned on issuing an order that no sirens—only bells be sounded upon returning from a fire. But the Appellate Division of the State of New York decided that a fire truck returning from a fire was in reality going to a fire in view of the fact that trucks so returning may upon arriving at the station find a multiple alarm had been received in their absence, requiring them to immediately respond to the newly located fire.

Friday Morning Session

The Friday morning session opened with the interesting paper on Ventilation by Asst. Chief Thomas F. Dougherty, of the New York Fire Department. Chief Dougherty's paper will be found in full elsewhere in this issue.

Chief McGinley, of the East Orange, New Jersey, Fire Department, inquired relative to ventilating a ten-story fireproof building where the seventh floor was fully involved. In answer to this question Chief Dougherty stated that ventilation would be accomplished by breaking the windows with streams from the water tower. He added that, if possible, it would be the proper move to get above and open over stairwell and elevator shaft, but in no case to do this if it would jeopardize the lives of the men. He cited one instance where shotguns were used in a building across the street to break the windows in the fire building, and ventilation was thus accomplished with good effect.

Chief Smith, of Pittsburgh, pointed out that ventilation would be a simple matter in such a building if Chief Dougherty's suggestion regarding employment of automatic vents with fusible links was adopted. He suggested that the time is ripe for the fire chiefs to bring the matter of legislation covering automatic vents before the Legislature.

In answer to another question by Chief McGinley as to whether or not an elevator shaft should be used for ventilating in a burning structure, Chief Dougherty answered that where a car is stopped in the shaft, no effective results could be secured by opening up over the shaft. On the other hand, he cited an instance in New York where at a stable fire which killed a large number of horses on the first and second floors, all the horses on the third floor were saved through the process of ventilation by opening up over the elevator shaft.

New York Firemen Demonstrating the Effects of Ventilation

Eastern Association of Fire Chiefs are interested spectators at the Smoke House of the New York Training School.

This question was also discussed by Deputy Chief Henry Helm of New York, Chief Davis, Chief Waldron and Chas. Fischer.

Committee to Frame Legislation

On motion by Chief Dougherty, of Linwood, Pennsylvania, a committee was appointed by the President to suggest legislation covering the installation of automatic vents in buildings.

Dr. Archer Speaks

The final paper on the Friday morning program was by Dr. Harry M. Archer, Honorary Surgeon of the New York Fire Department. Dr. Archer spoke on artificial respiration the resuscitation, outlining the methods of properly perform-

ing such operations. He also emphasized the necessity for prompt action in rendering first aid to unconscious persons.

Dr. Archers' talk brought forth a great deal of interesting discussion, and following which he showed moving pictures of resuscitation as performed in cases of electric shock, drowning and asphyxiation.

Final Business Session

President Greenfield, upon resumption of the business meeting, announced the appointment of the following committees to formulate plans for the proposed fire college:

Chief John Kenlon, New York, Chairman.
Chief Ross B. Davis, Philadelphia.
Chief Richard L. Smith, Pittsburgh.
Geo. W. Booth, Chief Engineer, National Board of Fire Underwriters.
Chas. Fischer, Consulting Engineer of the Association.
Chief T. W. Greenfield, Arlington Works, Kearney, N. J.

Next Year's Meeting in Baltimore

Upon urgent invitation by Chief August Emirch, of the Baltimore Fire Department, and two other of his city officials, the convention voted unanimously to hold next year's meeting in that city. The convention will meet some time in June.

Resolutions

A resolution of thanks was extended to Chief Kenlon, and those in New York who contributed their time and effort toward making the convention such a great success. Also to the Hotel Pennsylvania, which contributed a very excellent meeting room withou cost to the Association.

Incidentally, this convention proved to be one of unusual interest and one which was devoted solely to business. It was the consensus of opinion of those present that it should be classed among the best of any of the sectional meetings ever held in this country.

Chief Kenlon's attendance at all sessions and his active participation in all respects contributed a great deal to the convention.

In addition, Chief Greenfield's insistence upon punctual attendance and the businesslike manner in which he handled the various discussions deserves commendation.

Secretary T. Howell Johnson, of Newark, who is se'dom heard on the floor, but who shoulders the burdens of organization details, was, like the other officers, highly satisfied with the way the convention features were carried out. Chief Johnson has put in a great deal of hard work on the affairs of the Eastern Association, and naturally it must be gratifying to him to find it developing so satisfactorily.

Drills

On Friday after noon the delegates assembled at the fire department drill yard, 156 East 68th Street, where they were shown a drill company going through the various evolutions of the New York Fire School. In addition, demonstrations were made by the Rescue Company and Department Ambulance, as well as by the Fyre-Freez Company.

The latter demonstration consisted of extinguishing fires in alcohol, gasoline, and lacquer.

Correspondence—Fighting Cellar Fires

(*Continued from page* 630)

floors, windows should be pulled down two-thirds from the top and raised one-third from the bottom. In this way fresh air will enter. However, ventilation should not be started until the engine company men have charged lines in readiness to follow up the fire.

At present, there are several devices for fighting cellar fires where it is impossible for men to enter with hose lines. The better known devices are the Hart and the Baker cellar pipes.

When using the Baker cellar pipe, a single gate valve should also be employed so that in the event that it becomes necessary to move the pipe, or to shut down the water, the line need not be shut off at the hydrant. The gate valve should be attached at the first coupling from the cellar pipe connection. It is not necessary to use the single gate valve in connection with the Hart cellar pipe as this particular pipe has a shut-off valve attached to it to control the flow of water.

I believe that if a cellar pipe is to be used, a line should be stretched for that purpose only. In other words, a line that is already charged should not be transferred to a cellar pipe. In operating a pipe stream, it should be directed at an upward angle so as to secure maximum range and still be able to keep the ceiling of the cellar cool. The nozzle of the pipe should be kept in motion at all times. Too little thought is given to the effectiveness of the cellar pipe and its value in fighting such fires and other blazes that must be fought from the floor above the fire floor.

By proper manipulation, the cellar pipe will put out a large amount of fires and enable the men to enter the fire zone. With the Hart cellar pipe it is possible to make a complete turn of the nozzle. With the Baker pipe it is possible to make a two-thirds turn of the nozzle. The Hart cellar pipe is also equipped with a spray, the object of which is to keep smoke and heat from coming up into the face of the operator. The movement of the nozzle on the Hart cellar pipe is controlled by a T-shaped handle, while the movement of the other type is controlled by a bar.

I believe that it would be of great assistance to the fire department if all stores and business places were provided with an entrance to the cellar leading from the front of the store, on the inside. Many times it is possible for firemen to enter a cellar with a hose line if the cellar stairs are arranged in this way. If the stairs are in the rear, firemen have to force their way through smoke and heat to reach the cellar steps.

Another important factor in fighting cellar fires is preventing the fire from entering adjoining cellars as some cellars are separated only by a thin partition. In covering this particular exposure, truckmen should be sent, if possible, to adjoining cellars to investigate conditions. Cellar fires are very deceiving and often reach greater stages than first-hand appearance would indicate.

Yours truly,
ELWOOD F. WILCOX,
Truck Co. No. 4, Scranton, Pa.

Fire Marshal Prial of New York, Dead

John P. Prial, deputy chief fire marshal of New York City, died on July 16, in St. Anthony's Hospital. He had been ill since last winter from a complication of ailments which incapacitated him from his duties in the division of fire investigation, with which he had been connected for thirty years.

Mr. Prial was born in the lower end of the old Chelsea district of Manhattan fifty-three years ago. His father Edward Prial was a pioneer carriage manufacturer. He attended St. Francis Xavier College in West 16th street, from which he was graduated with the degrees of B.A. and M.A., and later graduated from Fordham University Law School with a degree of law. Although he never practiced his profession, his knowledge of law often became useful to him in his work running down incendiaries and convicting them. His fire department activities first attracted public attention by his complete and conscientious investigation of the fire aboard the ill-fated steamboat General Slocum and its appalling loss of life in June 1904. It was Prial who delved into the facts surrounding the origin of the fire which totally destroyed the old Equitable office building during the winter of 1912. He also directed the work of running down and apprehending "Izzy the Painter" whom he later convicted for making many fires on the east side of Harlem. "Izzy the Painter" otherwise Isadore Steinkreutzer was sentenced by Judge Mulqueen in General Sessions Court to a long term in prison.

The conviction of "Izzy the Painter" broke up one of the most vicious arson rings in this city and caused several of its members to flee. In recent years, Prial's activities have been mainly along the lines of preparation and examination of arson cases before taking them into court.

He is survived by his wife, Mrs. Mary Prial, a son Edward and a daughter Jean. He was very active in fire department affairs and was one of the organizer's of the Firemen's Cycle Club.

New York Fireboat Bids

Bids for a new gasoline-electric fireboat for the New York Fire Department were opened on July 13th with the following result:

Todd Dry Dock Engineering & Repair Corporation $590,641; United Dry Dock Company $615,000 and the John W. Sullivan Co., $624,000. The department appropriation is only $350,000.

Commissioner Dorman has not disclosed what he intends to do in the matter.

Contracts for new fire apparatus have been awarded for the following to the American LaFrance & Foamite Industries, Inc., one water tower, four 75-foot ladder trucks and seven gasoline pumping engines of 700 gallons capacity, all aggregating $131,675.

WM. JEROME DALY.

Burlington, Ia., May Buy Pumper—Burlington, Ia., is considering the purchase of a pumper.

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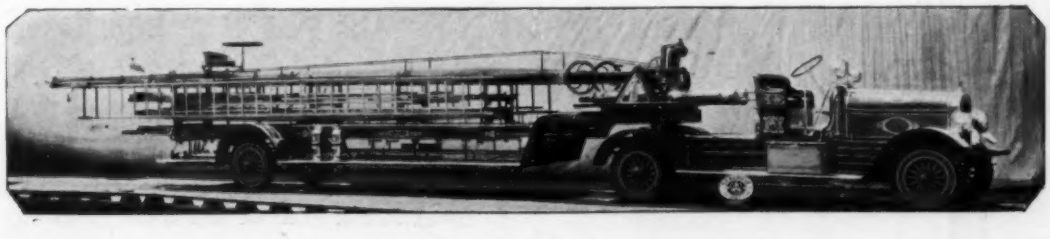
Safe! Safe! Safe!

The movement of a single lever starts, controls and efficiently locks the Seagrave Aerial Ladder. No Air. . . . No Liquids. . . . No Exposed Gears!

It is built simple and strong to meet the demand of fire-fighting and give the greatest satisfactory service. The motor is of sufficient horse power to meet the most difficult situations.

Safety, simplicity and strength are the foundation of its construction and the object of its builders.



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No. 2. (Capacity 3 to 12 tons; weight, each, 118 lbs.)

Complete Information and Prices on request.

It's often necessary to move apparatus at a fire. Automobile traffic hates to be held up by a line of hose stretched across the right of way.

Why ruin your hose by driving over it? Or waste valuable time cutting off and disconnecting?

The Wausau Protector is a big time and money saver—easy to handle and carry. Order a set today, or write us for particulars

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2 Automatic Packing.
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4 Stainless steel pump shafts.

The design of Hale pumps has been perfected through fifteen years of active experience, and has resulted in a rugged, highly efficient product.

HALE FIRE PUMP CO., INC.
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The Warning Shriek of a Siren!

A Flashing Red Light!

—And Traffic Makes Way for the Fire Department

Down the street rushes the fire department. Traffic must stop—*and it does.* The streets must be cleared—*and they are.* For the Harrington-Seaberg Signal has sounded the warning with its shrill siren blast and flashing red "STOP" light.

Are the congested areas in your city equipped with Harrington-Seaberg Warning Signals? Cities of every size the country over find them incomparable for those quick-action moments that come so unexpectedly.

Sturdy, faultless construction is your guarantee of dependability and durability. Write for descriptive literature.

Our Engineering Staff will be glad to offer suggestions for the solution of your traffic problems.

We also manufacture automatic and hand operated time limit switches to use with the traffic warning signals. Shall we send you detailed information?

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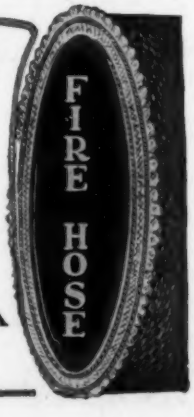

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PROPOSED IMPROVEMENTS

Sioux City, Woodbury Co., Iowa.—City calling for bids for construction of new fire station to replace the one on Fifth St., west of Wall.

Harrisburg, Dauphin Co., Penn.—City official discussing erection of a central fire station at Fifth and Walnut streets.

Provo, Utah Co., Utah.—Additional fire equipment is to be purchased shortly. Reed Boshard, Chief of Fire Dept.

Oroville, Butte Co., Calif.—City Council has instructed S. J. Norris, City Engineer, to prepare plans and specifications for a city-wide fire alarm system. Present estimate given as $18,000.

San Francisco, Calif.—The Marina Property Owners Protective Association and the Marina Home Owners Improvement Ass'n advocate the installation of a fire company in their district, properly housed and equipped.

Buffalo, Erie Co., N. Y.—Reports state that the finance committee of the common council recently approved a proposal for the purchase of fire apparatus for the Buffalo Airport.

Washington, D. C.—Fire station will be erected at Connecticut and Nebraska Ave., Chevy Chase District, approximate cost $100,000.

Fort Worth, Tarrant Co., Tex.—City plans to erect fire station at Berry St. and University Drive at a cost of $15,000. O. E. Carr, City Mgr., Manuel Ervin, Archt., Dan Waggoner Bldg.

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Fire Apparatus Delivery Engineer. Good Position with high class Compahy. Opportunity to develop in Sales Department. Address Box 175, c/o Fire Engineering, 225 W. 34th St., New York City.
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An experienced fire apparatus salesman for New England Territory. Address Box 180, care Fire Engineering, 225 W. 34th St., New York City.
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Good opening for an experienced salesman to sell to fire departments. Address Box 185, care Fire Engineering, 225 W. 34th St., New York City.
7-24

CONVENTION DATES

July 23-26—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 36th Annual Convention, Vancouver Hotel, Vancouver, B. C. Secretary, Jay W. Stevens, 113 Merchants Exchange Bldg., San Francisco, Cal.

July 31-Aug. 1-2—COLORADO STATE FIREMEN'S ASSOCIATION. 13th Annual Convention and Tournament, Greeley, Col. Secretary, Clinton Turnbull, 303 Jacobson Bldg., Denver, Col.

August—IDAHO FIREMEN'S CONVENTION. Tentative, August or September, Idaho Falls, Ia. Secretary-Treasurer, Earl Heath, Idaho Falls.

August—MAINE STATE FIREMEN'S ASSOCIATION. 2nd Annual Convention (tentative, exact time to be announced later), Waterville, Me. Secretary, Earl E. Pratt, Fire Department, Auburn, Me.

Aug. 7-9—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 7th Annual Convention, Fullerton, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth St., San Diego, Cal.

Aug. 7-9—SOUTHWESTERN ASSOCIATION OF VOLUNTEER FIREMEN OF NEW YORK. Annual Convention, Falconer, N. Y. Secretary, Royce Alden, Falconer, N. Y.

Aug. 12-14—UTAH STATE FIREMEN'S ASSOCIATION. 22nd Annual Convention, Tooele City, Utah, Secretary, Harris E. Anderson, Fire Headquarters, Salt Lake City, Utah.

Aug. 13-15—MICHIGAN STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Cadillac, Mich. Secretary, Geo. F. Dansbury, Grosse Pointe Farms, Mich.

Aug. 16-17—CONNECTICUT STATE FIREMEN'S ASSOCIATION. 46th Annual Convention, Plaza Theatre, East Hartford, Conn. Secretary D. W. Hartford, South Norwalk.

Aug. 20-23—FIREMEN'S ASSOCIATION STATE OF NEW YORK. 57th Annual Convention, Saranac Lake, N. Y. Secretary, Fred A. Davis, Fort Edward, N. Y.

Aug. 20-24—INTERNATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS. Annual Convention, Hotel Statler, Boston, Mass. Secretary, H. N. Lang, Box 1864, Orlando, Fla.

Aug. 26-28—NEW MEXICO STATE FIREMEN'S ASSOCIATION. 7th Annual Convention, Gallup, N. M. Secretary-Treasurer, Theodore A. Rosenwald, Albuquerque, N. M.

Aug. 28-30—VIRGINIA STATE FIREMEN'S ASSOCIATION. 43rd Annual Convention, Lexington, Va. Secretary, E. K. Landis, Pulaski, Va.

Sept. 3-5—KENTUCKY STATE FIREMEN'S ASSOCIATION. 1st Annual Convention, Ashland, Ky. Secretary, Captain S. G. Render, 303 Speed Bldg., Louisville, Ky.

Sept. 9-11—ARKANSAS STATE FIREMEN'S ASSOCIATION. 8th Annual Convention, Camden, Ark. Secretary-Treasurer, H. D. Compton, Central Fire Station, Little Rock, Ark.

Sept. 10-12—ILLINOIS FIREMEN'S ASSOCIATION. 42nd Annual Convention, Joliet, Ill. Secretary, Assistant Chief Roy W. Alsip, Fire Department, Champaign, Ill.

Sept. 17-18—IOWA STATE FIREMEN'S ASSOCIATION. 52nd Annual Convention, Red Oak, Ia. Secretary, E. E. Parsons, Marion, Ia.

Sept. 18-19—MISSOURI ASSOCIATION OF FIRE FIGHTERS (Consolidated with former Missouri State Association of Fire Chiefs). Annual Convention, Jefferson City, Mo. Secretary, M. J. Mulvoy, 3500 S. Grand Boulevard, St. Louis, Mo.

Sept. 19-22—LOUSIANA STATE FIREMEN'S ASSOCIATION. 24th Annual Convention, Jennings, La. Secretary, Chief A. J. Bethancourt, Houma, La.

Sept. 20-21—NEW JERSEY STATE FIREMEN'S ASSOCIATION. 52nd Annual Convention, Atlantic City, N. J. (Tentative date, to be definitely set later by Executive Committee). Secretary, William Exall, Room 602, Chamber of Commerce Bldg., Newark, N. J.

Oct. 1-3—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 50th Annual Convention, Hotel Roosevelt, Pittsburgh, Pa. Secretary, Charles E. Clark, P. O. Box 217, Wayne, Pa.

Oct. 15-17—RAILWAY FIRE PROTECTION ASSOCIATION. Annual Meeting, Toronto, Can., Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio Railroad, Baltimore, Md.

Oct. 21—SOUTHEASTERN FIRE CHIEFS ASSOCIATION. 2nd Annual Convention, Tutweiler Hotel, Birmingham, Ala. Secretary, Chief H. E. Whitner, Hickory, N. C.

Oct. 22-25—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 57th Annual Convention, Hotel Tutweiler, Birmingham, Ala. Exhibits City Auditorium. Recording Secretary, Chief James J. Mulcahey, Yonkers, N. Y.; Executive Secretary, Jay W. Stevens, 113 Merchants Exchange Bldg., San Francisco, Cal.; Chairman, Exhibit Committee, Chief Selden R. Allen, Brookline, Mass.

May 12, week of, 1930—NATIONAL FIRE PROTECTION ASSOCIATION. 34th Annual Meeting, Atlantic City, N. J. 1931 Convention probably to be held in Toronto, Can. Secretary, Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

June, 1930—EASTERN ASSOCIATION OF FIRE CHIEFS. 3rd Annual Convention, Baltimore, Md. (Exact date to be decided later.) Secretary, Ex-Chief T. Howell Johnson, Room 602, Chamber of Commerce Bldg., Newark, N. J.

Chief Cody Observes 51st Anniversary

William B. Cody, in charge of the Atlanta, Ga., Fire Department, observed his fifty-first anniversary as a firefighter on July 6, and on July 9 he was congratulated on having reached his seventy-first birthday.

When he was three days shy of being twenty years old, he joined the volunteer fire department. At that time there were three fire engines in the city. He stayed with Mechanics No. 2 as a driver until the Metropolitan company was created with a force of paid firemen. He seriously considered leaving the department when fire-fighting became a paid profession, but the late Capt. James L. English, and prominent residents, prevailed upon him to remain.

Mr. Cody was made lieutenant in 1892, and a captain in 1895. He served in this office until he was elected chief in 1915. This position is a life position dependent upon good behavior.

At the age of seventy-one, Chief Cody is in excellent physical condition. He is a relative of the late "Buffalo Bill" Cody, and comes from Irish stock.

JOHN A. STULB.

N. Y. Officers to Inspect Buildings

Company commanders of the New York Fire Department have been ordered to inspect all buildings in their districts, three stories and over, in the course of construction, and to forward the reports to the chiefs of their respective battalions. These officers are instructed to consolidate the various company reports, and to forward the sheets to the Chief of Department.

Pearse Stages "Battle of the Flames"

A spectacular exhibition of fire-fighting was staged by Julius Pearse, district manager of the American-LaFrance and Foamite Industries, in cooperation with the Denver Fire Department, as part of the sixty-first anniversary of Laramie, Wyo. The exhibition by the firemen was but part of a three-day celebration.

The university stadium formed the stage. In it was erected a full city street with a saloon and business houses. On the north side was a gigantic oil field with derricks.

Soon after dark the oil field was ignited. Large columns of dense, black smoke ascended, and flames shot upwards. The fire was extinguished with foam. All but one derrick was saved.

An interesting exhibition of ladder and rescue work was presented by members of the Denver Fire Department under the leadership of Captain William J. Martin. The spectators were shown how rescues were made, and the use of the life line and scaling ladder. According to Mr. Pearse who has had fifteen years experience in staging such shows, the exhibition at Laramie was one of the most complete ever attempted.

Mobile, Ala., Wants Drill Tower—Mobile, Ala., is seeking the erection of a drill tower.

South Bend, Ind., to Install More Boxes—Additional fire alarm boxes may be installed in South Bend, Ind., to take care of the city's growth.

Two Maxim Pumpers Sold—The Woodhouse Manufacturing Co., agents for the Maxim Motor Co., has sold a 500-gallon pumper to Great River, L. I., and a 1,000-gallon pumper to Valhalla, N. Y.

FALSE ALARMS

MINUS TALENT

"I suppose when you sat down at the piano just delivered to the fire house, everyone was surprised to find you had been practicing for weeks."

"No. As a matter of fact, no one suspected it."

Feminine knees can't join the navy, but they sure do see the world.

SHE WAS WISE

The following story was told in good faith, and it is repeated on the same basis.

A man was attending a county meeting. Hotel rates were high and he tried to economize in other things.

He called up his girl friend and after talking to her some time, he moved the hook for the operator.

"Operator, you gave me the wrong number. I want my nickel back."

"What is your name?" asked the operator.

"Angus MacTavish."

"Well go lay an egg, Mr. MacTavish."

PAST TENSE

"They say that Bill drives the hose car sixty-five miles an hour."

"Don't say 'drives'," remark the other. "The paper this morning said that his funeral will be tomorrow."

In order to hold a town meeting in Ware, Mass., it is necessary that at least one hundred voters be present. At a recent meeting there was not enough on hand to establish a quorum, so the chemical car was sent down the street with its siren shrieking. Soon the residents rushed out and followed the apparatus. When it reached the town hall, followed by a crowd, the meeting was called to order.

UP TO THEIR NAME

The day the new firehouse was opened, the public was on hand to inspect the new building, and the shining fire apparatus. Therefore, there was much to talk about at the breakfast table the following morning. One mother asked her daughter:

"Did you see any of the chemical tanks while you were in the fire house?"

"Yes, mother. Those firemen drink something awful."

The elevator operator hears a lot about fireproof buildings, but he is most interested in fireproof bosses.

FAMILY RECORD

The candidate faced the examining board as others had faced it the same morning. In a pathetic voice he made his last plea to be accepted. He said:

"Sirs, I would like to call your attention to the fact that this fire department has never been without one of my family."

This plea evidently touched the youngest officer of the examining board.

"Will the secretary kindly tell us the name of this candidate," he asked.

And the secretary replied:

"Smith, sir."

When you have decided to commit suicide, have locked the door and then turned on the gas only to have some fireman or other rescuer break down the door, be non-chalant—light a match.

BADLY MANGLED

The Glee Club took part in an outdoor festival. The last of their numbers was very well received, and the singers were called upon for an encore. But they had sung all they knew.

"What'll we sing for an encore?"

A sarcastic member of the group remarked:

"Sing the same song—they'll never recognize it."

Modern version: Wine, Women and Sing Sing.

SOLD BY THE HOUR

He was finally persuaded to attend the Six-County association meeting, and when he arrived in the convention city, he called on the leading hotel. The visitor asked the hotel clerk:

"How much do you charge for your rooms?"

"Two dollars up to ten."

"How much is one for all night?"

THEY AIMED HIGH

Although the two were members of a volunteer department, still they were called before the head of the department to show cause why their names should not be dropped from the rolls. They were charged with being seen on the streets intoxicated, a number of times.

"Young men, do you realize that you are not living up to our standard?"

"Well sir," replied one of them, "we drank all we could."

This country has ten million golfers, roughly speaking.

LET'S GET HER ADDRESS

The following advertisement was printed in the personal column of a Detroit newspaper:

Will fireman who picked up lady at the corner of Jefferson and Concord avenue Monday evening, please return silk dress and shoes left in car to——

FOLLOWING DIRECTIONS

The little French druggist was surprised to see a burly fireman come in very much excited.

"Remember, I came in and asked for some stuff to kill cockroaches that have been multiplying in the hose tower?"

"Yes, yes." Replied the chemist excitedly.

"Well the damn stuff is no good. It hasn't killed a single cockroach."

"Ah, you have not used it correctly. First you catch ze cockroach. Zen tickle heem in ze ribs until he open ze mouth. Ah, zen, pour ze powder down hees throat and poof! He choke and die."

She was only a fireman's daughter, but she was nobody's fuel.

—Drawing by "Art" Espey.

Firemen Unable to Control Flow of Heated Words

The public often errs, as for example, the case of peace-abiding citizens in a Wisconsin city. A couple who had forgotten the "love, honor and obey" clause in the marriage contract, kept neighbors awake until the early hour of three a.m. Some thoughtful person sounded a fire alarm, and five companies responded. At the sight of the firemen, the she-male fighter fainted.

B&M FORD SIREN

MADE TO FIT THE NEW MODEL FORD

PRICE 65.00

COMPLETE WITH DRIVE PULLEY FAN AND BRACKET

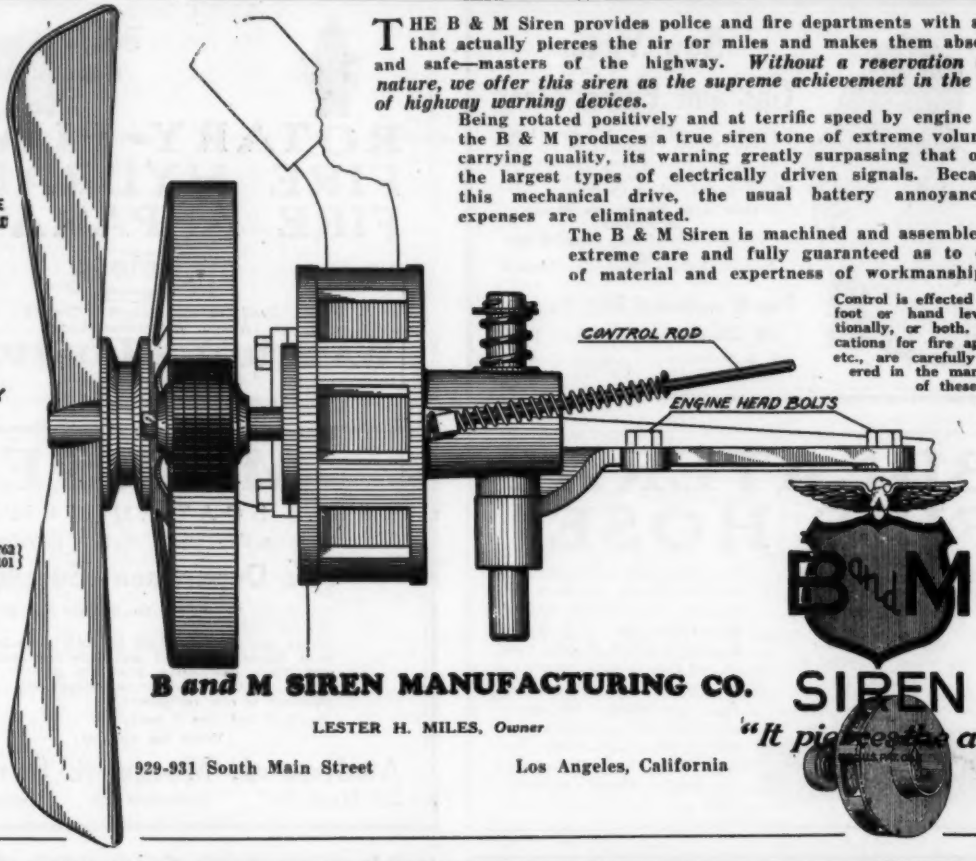
PATENTS
{1,566,761 1,566,762}
{1,566,763 1,586,101}
Others Pending

THE B & M Siren provides police and fire departments with a voice that actually pierces the air for miles and makes them absolute—and safe—masters of the highway. *Without a reservation of any nature, we offer this siren as the supreme achievement in the design of highway warning devices.*

Being rotated positively and at terrific speed by engine power, the B & M produces a true siren tone of extreme volume and carrying quality, its warning greatly surpassing that of even the largest types of electrically driven signals. Because of this mechanical drive, the usual battery annoyance and expenses are eliminated.

The B & M Siren is machined and assembled with extreme care and fully guaranteed as to quality of material and expertness of workmanship.

Control is effected through foot or hand levers optionally, or both. Specifications for fire apparatus, etc., are carefully considered in the manufacture of these signals.



B and M SIREN MANUFACTURING CO.

LESTER H. MILES, *Owner*

929-931 South Main Street Los Angeles, California

B and M SIREN

"It pierces the air"

Buffalo Type 50—500 Gallon Pumper

Buffalo Pumpers are the most highly developed in design, construction and engineering standards and are intended for municipality, community and township fire protection.

Buffalo Pumpers are also noted for their efficiency and their great abundance of reserve power. They are pumpers with stamina and speed. All the above have to be credited for bringing great pumping merits for Buffalo Pumpers.

Buffalo Pumpers are given great and careful attention when under construction at our factory by engineers, both mechanical and designing, who have been in contact with the construction of pumpers for years.

Buffalo Pumpers range from 300 gallon capacity to 1000 gallon capacity.

IF YOU WANT SOMETHING BETTER BUY *"BUFFALO"*

Write for detailed specifications

BUFFALO FIRE APPLIANCE CORP.

44 CENTRAL AVENUE BUFFALO, N. Y.

Manufacturers of all types of Fire Apparatus

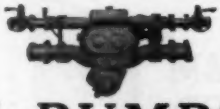
New Victor Gas and Fume Mask

Better Rubber. Longer Life. Better Fitted. Moulded to Fit the Face. Better Vision. Renewable Lenses. Better Air. Better Work. Low Prices. High Quality.

Over 5,000 Victor Gas Masks in Service
Full Line Fire Dept. Supplies and Equipment
New 43 Edition Catalog on Request

The Woodhouse Mfg. Co., Inc.
156 Chambers St., New York

D. A. Woodhouse, Pres. and Gen. Mgr. — George J. Kuss, Vice-Pres. and Treas.



ROTARY PUMPS FIRE HYDRANTS FIRE APPARATUS

Waterous Dependable

Send for our Complete Catalog
Agents in Principal Cities

WATEROUS COMPANY
St. Paul, Minnesota

BI-LATERAL FIRE HOSE

THE BI-LATERAL FIRE HOSE CO.
Canal St. Station
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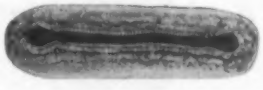
Chicago, Ill.



It is the only fire hose that never bursts at fires because pin-holes are responsible for sections bursting after it has been in service a few years.

Bi-Lateral hose can never have pin-holes. We guarantee it six years and furnish the Durobuilt improvement and rocker lug coupling without additional cost.

MORSE

FIRE BOAT EQUIPMENT
Invincible and Callahan Nozzles

Fire Department Supplies

are in use throughout the country and giving unsurpassed service.

Every fire official should be fully acquainted with Morse equipment and have our catalog and other descriptive literature on file for ready reference whenever considering the purchase of new equipment.

You will find that it pays.

Write for Catalog

Andrew J. Morse & Son, Inc.
221 High St. — Established 1837 — Boston, Mass.

THE SHIFT COUPLER

Built to
CONNECT and DISCONNECT instantly!

Any size hard suction

Years of Service
Prove it the Best

National Standard Threadless Coupling Corp.
215-217 Beach 122 St., Rockaway Park, N. Y.

when!

You are interested in Fire Fighting Equipment consult:

BOYER

Builders of equipment to meet your requirements.
Specializing in Apparatus for Rural Fire Fighting.

BOYER FIRE APPARATUS COMPANY
Logansport, Indiana

EDDY Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.

James B. Clow & Sons, Chicago Agents

COREY

Hydrants as manufactured by "Rensselaer" are being used to fight fire in every State of the Union. Made of the very best material and workmanship.

"The Rolls-Royce among Fire Hydrants"

RENSSELAER VALVE CO.,
TROY N,. Y.

The Round Table

(*Continued from page* 638)

Salvage work greatly reduces fire loss and has brought about the saving of thousands of dollars in property damage.

C. M. Gordon, Chief, Warren, Pa.: I believe that every fire department should carry covers and use them. There are many, many times when covers properly used would save a great deal of property from water damage.

The property owners and the insurance companies would benefit by salvage work. As a matter of fact, where efficient work of this type is done, the whole town would benefit.

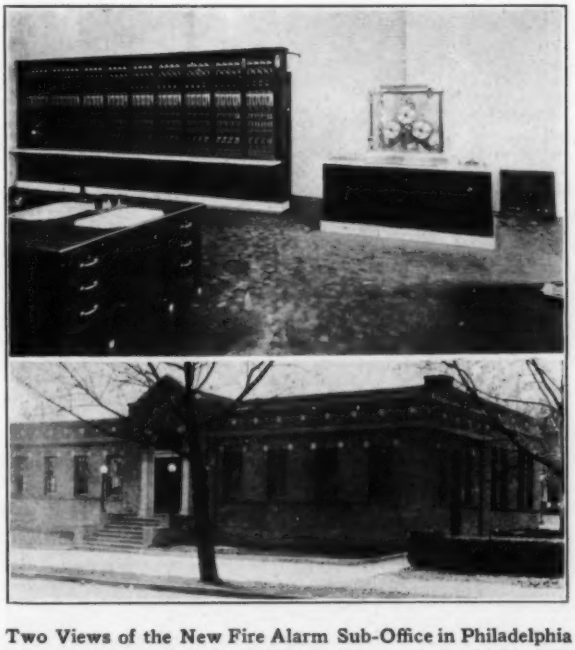
J. H. Speddy, Chief, Lakewood, Ohio: In the writer's opinion municipal fire departments should do as much salvage work as possible. A few of the reasons why they should do this work are as follows:

The damage by water and the promiscuous damage to stocks, fixtures, furniture and buildings caused by the lack of appliances and the proper training of men in the use of same. Salvage work when efficiently applied is usually recognized and brnigs forth much favorable comment from owners and occupants of buildings which, of course, has a tendency to place the work of the fire department on a very much higher plane of service which it so justly deserves.

Daniel F. Sennott, Chief, Boston, Mass.: I do not believe that in a large city like Boston that the municipal fire department should do salvage work. A salvage corps should be maintained by the insurance companies.

The principal benefits derived from efficient salvage work is the reduction of fire losses due to this operation.

A. H. Lankford, Chief, Glendale, Cal.: Fire departments should do salvage work. The duty of a fire department is to save life and property. If property can be saved by salvage work, then this should be done. This work is just as important as directing a stream on a fire. I personally believe a great deal of property can be saved by effective salvage work and am therefore convinced that it pays.



Two Views of the New Fire Alarm Sub-Office in Philadelphia

Frank E. Maize, chief of the Electrical Bureau, is in charge of the new Gamewell equipped fire alarm sub-office that was opened in Philadelphia, Pa. This building, the exterior of which is shown in the lower photograph, serves an area of 83,016 acres and a population of 1,979,364. The apparatus consists of seven 4-circuit main line relay boards, one 6-circuit primary alarm board, one 6-circuit secondary alarm board, one 40-circuit protector board, one dynamotor control panel, one 100-circuit terminal board, one recording set, a manual transmitting outfit, master clock, 42 dynamotors, 1440 cells and so forth.

L. R. Morris, Chief, Ames, Iowa: I think all fire departments should do a certain amount of salvage work, such as using covers, draining the water off floors, and cleaning up in general after a fire.

The public and the insurance companies will have a good word for the department doing this work. Also the department will succeed in cutting down the fire loss of the city.

B. B. Hart, Chief, Daytona Beach, Fla.: I believe fire departments should do salvage work in all cases where possible, after the men are properly at work controlling the fire itself.

Salvage work is the means of saving a great deal of property. Where property is saved, the public has a much better feeling toward the department.

V. H. Steele, Chief, Billings, Mont.: Yes, fire departments should do salvage work within certain limits. However, I believe this work can be carried to the extreme by the department. When a fire occurs, agents, owners or occupants of a building should be summoned as soon as possible and instructed to get their own force of men to carry out the salvage operations completely.

Salvage work saves property and makes for a more efficient fire department. It also gives us the satisfaction of knowing that the job has been well done.

H. S. Blair, Chief, Bellefontaine, Ohio: I do not think firemen should do salvage work in a department the size of ours. We do not have a sufficient number of men to carry on this work. However, I do believe that salvage work is a great help in protecting goods, etc. We recently purchased covers in order to do as much as we can toward salvaging property.

A. M. Newton, Chief, East Chicago, Ill.: It is my opinion that salvage work should not be done by fire departments except in cases where the departments have separate salvage divisions. Insurance patrols, such as are in operation in the city of Chicago, offer, I believe, the proper solution to the salvage work problem.

Efficient salvage work often results in cutting the fire loss and water loss fifty per cent.

Geo. Holst, Chief, Marietta, Ohio: Every municipal fire department should do salvage work. Small cities should have more men and equipment in order to be able to carry on this work. Losses would be greatly reduced if goods in mercantile establishments were properly covered.

J. M. Andrews, Chief, Sherman, Texas: As salvage work requires additional men, I think it is up to the tax payers to say whether or not they want to pay for additional men in the fire department to do this work. I believe that salvage work should be done by fire departments provided there are enough men to take care of this work without delaying the department in extinguishing the fire.

Donald J. Rayburn, Chief, Eldorado, Kans.: By all means fire departments should do salvage work. Where work of this type is carried on, fire losses, caused by water damage, etc., are cut from one-half to three-fourths of what they would be if there were no attempts to do salvage work.

F. L. Nelson, Chief, Cherokee, Iowa: Yes, fire departments should do salvage work to keep down the fire loss. Such work helps to make firemen more careful with water and thereby reduces the amount of damage.

N. Belfy, Chief, Muskegon, Mich.: As far as possible fire departments should do salvage work in order to reduce the fire losses.

Frank Gilkeson, Chief, Bristol, Pa.: I believe in small towns and cities the insurance companies should do the salvage work. Those who are not covered by insurance benefit by salvage work in that a great deal of their property is saved.

Geo. E. Koeber, Chief, Bloomfield, N. J.: Yes, fire departments should do salvage work in order to cut down the damage done by water, and thereby reduce the total fire loss.

B. M. Ward, Chief, Fayetteville, N. Car.: To my mind, fire departments should do salvage work. Work of this type reduces the amount of damage done in attics.

Karl R. Adams, Chief, Alma, Mich.: No, I do not think fire departments should do salvage work.

W. H. Funderbunk, Chief, Springfield, Ill.: Municipal fire departments should do salvage work. This work reduces the fire loss, which is something all chiefs are interested in.

Talmer Wise, Chief, Circleville, Ohio: If the department has a sufficient number of men to do salvage work, then I

believe this should be done. It is a known fact that salvage work reduces fire and water losses.

Wm. D. Champion, Chief, Goshen, Ind.: Yes, the departments should do salvage work. The more fire loss is kept down, the lower the insurance rate will be.

Anthony Jones, Chief, Saint Marys, Ohio: Fire departments should do salvage work in order to reduce the total fire loss. Where this work is done, there is also a reduction in the water waste due to the more careful use of streams.

James Taylor, Chief, Paragould, Ark.: I think fire departments should do some salvage work where there isn't a salvage corps to perform this operation. One of the benefits derived from salvage work is a lower insurance rate.

Answer to Previous Question

Wm. F. Hewett, Chief, Port Washington, N. Y.: We have a Gamewell siren for calling out firemen. At first we tried operating this siren from each separate fire house, the information about the fire being secured from the telephone operator. However, the moment the siren was sounded it seemed that every telephone in the town was being used to secure information about the fire. We endeavored to stop these calls but without success. We then had the dials and siren switch installed at police headquarters. Direct telephones from each fire station to police headquarters were also installed. In this way the first man arriving at a fire station can pick up the receiver and get police headquarters. After securing the information from this source, he writes it on the bulletin board for the rest of the men. We find this system works out very well, as the man at the desk at police headquarters does not give information to any outsiders. The police department has cooperated with us very well, so that we are not troubled with traffic congestion caused by private cars going to the fire. By the time the fire is generally known, the apparatus is at the scene of the blaze.

NEW STANDPIPE RULES ADOPTED FOR THE CITY OF NEW YORK

Board of Standards and Appeals Formulates New Regulations—To Be Published in Their Entirety in These Columns

HEREWITH is continued from the June 26 issue the new "Standpipe-Fire Line Rules" of New York City. The original rules were adopted by the Board of Standards and Appeals of that city on June 22, 1922, were amended July 20, 1923, and again on May 18, 1928. The finally adopted form as reproduced herewith, was adopted July 20, 1928. Through the courtesy of Chairman William E. Walsh, of the Board, FIRE ENGINEERING *is enabled to publish the entire new rules serially.*

Aeroplane Hangar Destroyed at Curtiss Field

Apparatus from five villages could not control the blaze that succeeded in destroying the Rogers Air Lines hangar at Curtiss Field, near Garden City, L. I. In this shed were major parts of twenty planes. The photograph was taken while the fire was at its height.

These new rules are formulated largely through the efforts of Peter J. Maher, Fire Preventive Inspector attached to the Division of Fire Appliances of the New York Fire Department.

RULE 92. HOSE OUTLET VALVE.—Hose outlet valves shall be 2½ in.

A—All hose outlet valves hereafter installed in buildings not exceeding 300 feet in height, or for the uppermost 300 feet in any building, shall conform to the following specifications:

1. Valves shall have a clear waterway of at least 5 sq. in. in area.

2. They shall show not more than 5 lbs. friction loss for a flow of 300 gallons per minute.

3. They shall close tightly against 300 lbs. hydraulic pressure under normal working conditions.

4. They shall stand a hydrostatic pressure test of 750 lbs. per sq. in. for 30 minutes and not distort.

5. They shall stand the operation of full opening and closing 300 times under 150 lbs. pressure without leaking at stuffing box or seat.

6. They shall not be of cast or malleable iron.

7. Only angle globe valves shall be permitted.

B—Hose outlet valves hereafter installed in buildings exceeding 300 feet in height, except as provided for in Subdivision A, shall show not more than 5 lbs. friction loss for a flow of 300 gallons per minute; they shall close tightly against 500 lbs. hydraulic pressure under normal working conditions; they shall stand a hydrostatic test of 1,250 lbs. per square inch for 30 minutes and not distort; they shall stand the operation of full opening and closing 300 times under 250 lbs. hydraulic pressure without leaking at stuffing box or seat. They shall be of brass or best grade of valve bronze.

Straight-way gate valves may be submitted for test.

All hose outlet valves hereafter installed shall have cast in the body of the valve:

1. The manufacturer's name or trade-mark.
2. The working pressure of the valve.
3. The approval number of the Board of Standards and Appeals.

Not less than 2 approved hose valves shall be delivered to the office of the Board of Standards and Appeals, the weight and other general matter noted, and valves certified. One of the valves shall then be delivered to the office of the Fire Commissioner, with certified specifications.

RULE 93. SPECIFICATIONS.—Siamese Connections. Fire Department siamese connection shall be as hereinafter stated in this rule.

1. The body of the siamese may be of cast iron, cast steel, brass or any other suitable metals of sufficient strength to comply with Item 8 of this specification. All movable parts, clappers, swivels and all bolts, washers, nuts, screws and pin bearings and all swivel bearings shall be of non-corrodible metal.

2. Clapper valve seats shall be made of non-corrodible metal and shall be machined to insure a tight seat for clapper valves.

3. Each inlet to siamese shall be provided with a clapper valve machined to a true face. Single clapper siamese connections shall not be permitted.

4. The inside diameter of valve seats shall not be less than the inside diameter of the hose couplings. The area of the waterway beyond the valve seats shall not be less than the combined areas of the waterways through the two valve seats. The area of the waterway of each inlet shall not be reduced by the clapper when in a position of maximum opening.

5. Clappers shall be so hung that when siamese connection is placed in a horizontal position the clappers will be seated.

6. Swivels, attached to the body of the siamese by means of a collar expanded cold or screwed into the body of the siamese, or with other bearing surface extending entirely around the opening and exerting uniform shear, will be approved if giving a strength sufficient to meet Item 8.

7. Clapper valves must be of such design and area that a pressure of 100 lbs. per sq. in. on the standpipe side will not prevent their opening when the pressure on the steamer side is 150 lbs. They must be so hung that with a discontinuance of flow into the siamese through that inlet the valve will close, and that it will not close where there is an inward flow and the pressure on the inlet is 5 lbs. or more greater than the standpipe pressure.

8. Siamese connections must stand a hydraulic pressure test of 500 lbs. for 30 minutes under normal working conditions.

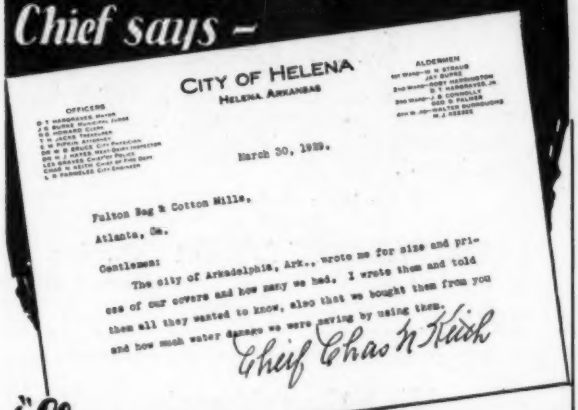
9. Clapper valves shall be tight for any pressure on standpipe side up to 300 lbs.

10. Approved caps or plugs must be provided to protect the threads of the inlets.

11. The inlet swivels to siamese connection shall be provided with threads to fit the Fire Department hose.

(To be continued)

Another Prominent Fire Chief says –



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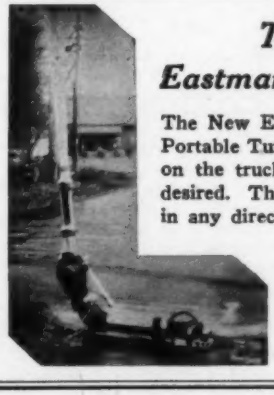

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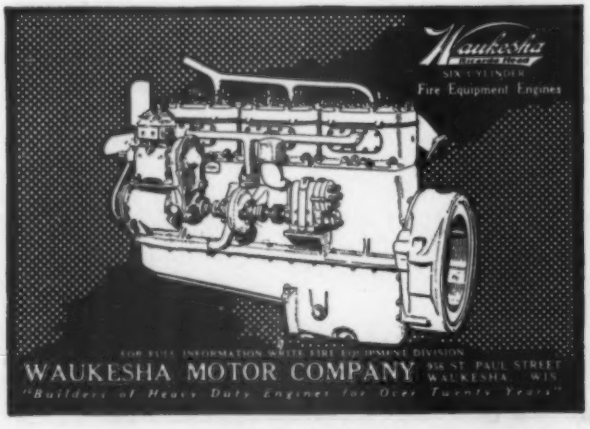

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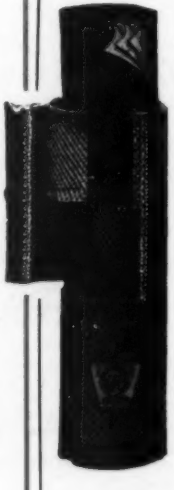

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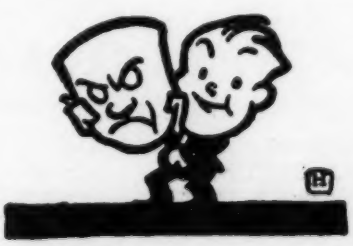

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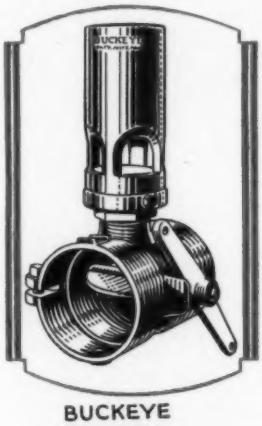

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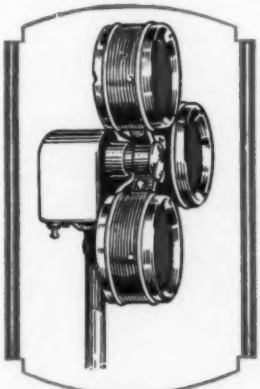

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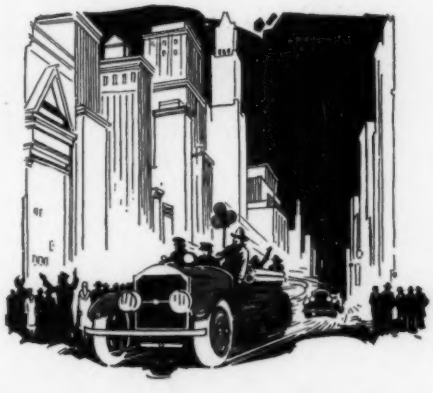

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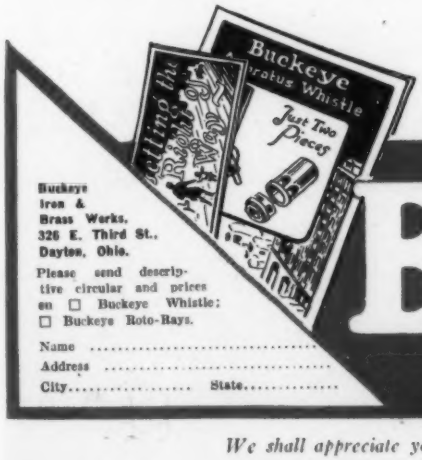

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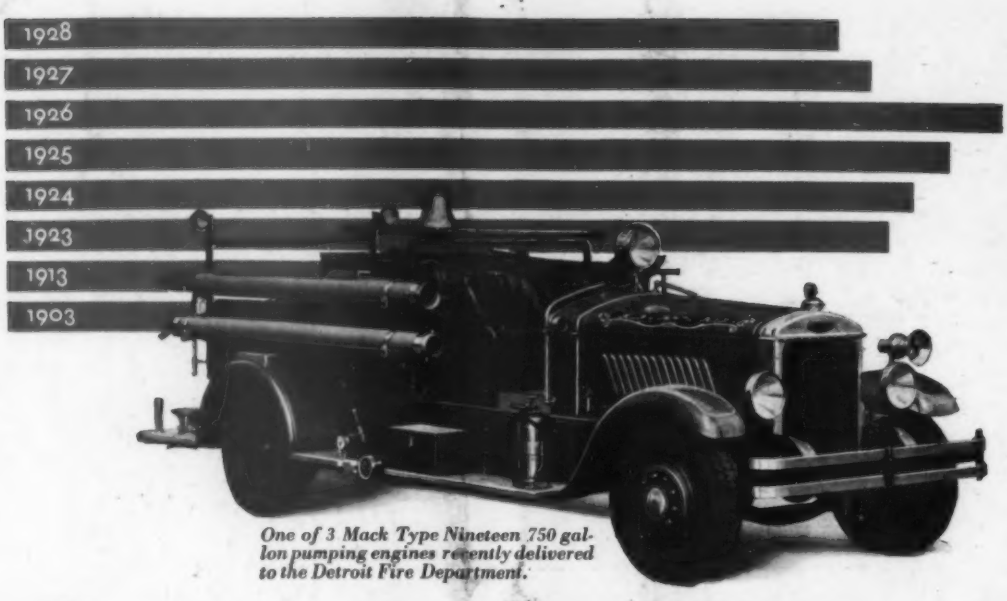

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